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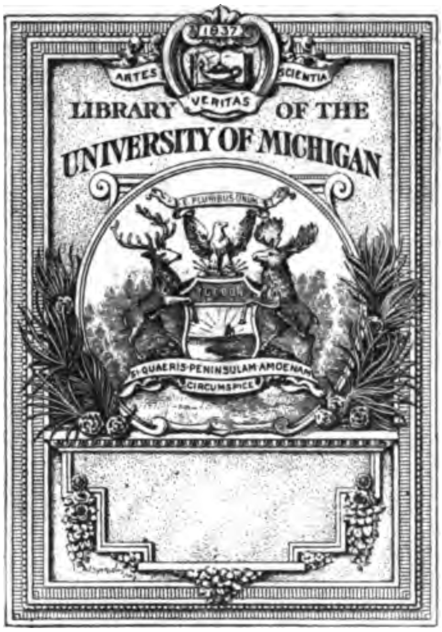

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American Photography

A CONTINUATION OF

AMERICAN AMATEUR PHOTOGRAPHER, ESTABLISHED 1889
CAMERA AND DARK ROOM, ESTABLISHED 1898
PHOTO BEACON, ESTABLISHED 1889
CAMERA NOTES, ESTABLISHED 1897

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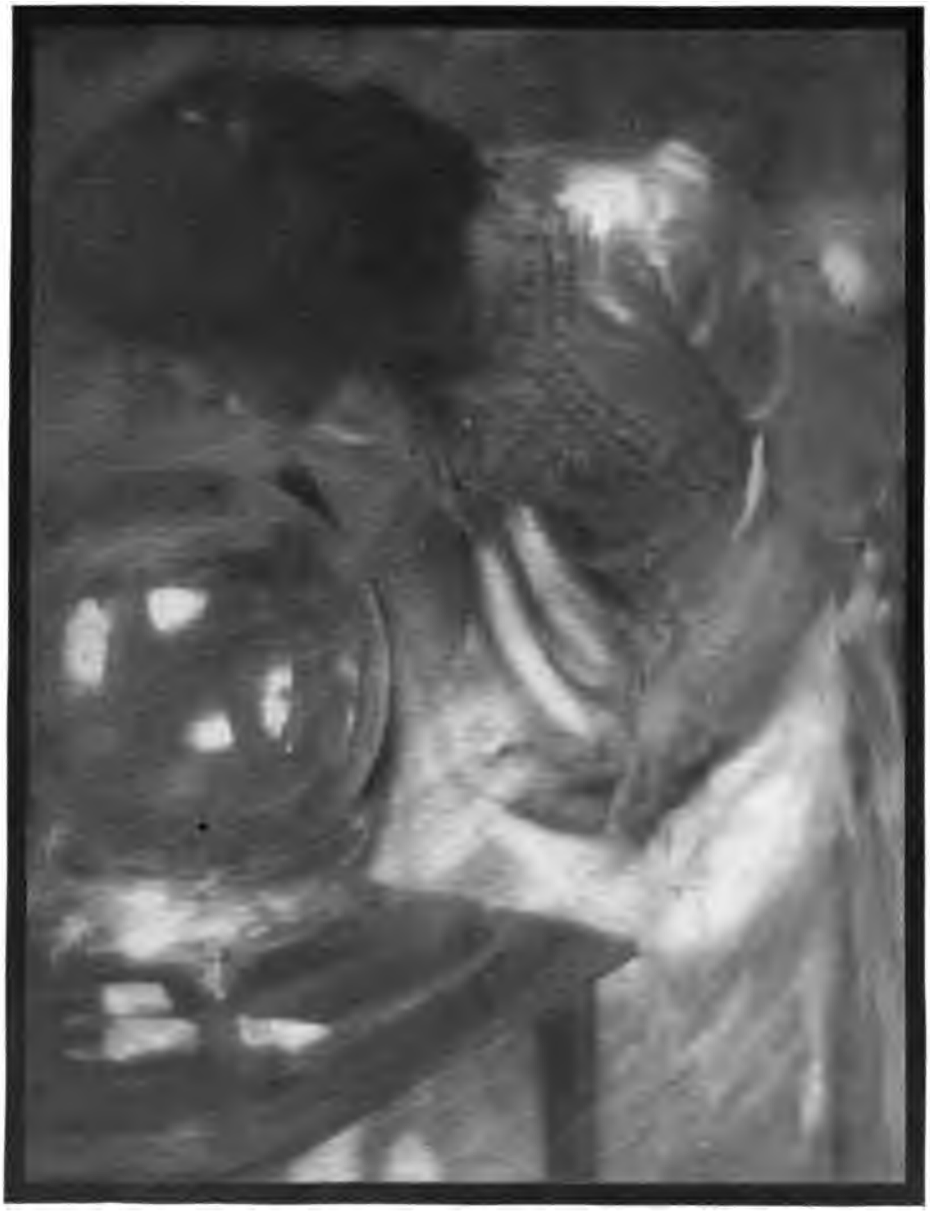


THE CRYSTAL GLOBE GERTRUDE KÄSEBIER, NEW YORK

PICTORIAL LANDSCAPE PHOTOGRAPHY

Contributed by the Photo-Pictorialists of Buffalo.

VIII. Conclusion.

The Presentation of the Print

WHEN mounting and framing, it is wisest to steer a middle course. The object aimed at should be to provide the print with a suitable and harmonious setting, which will show it to advantage, but not attempt to compete, even to the least degree, in interest.

Positively, the mount must exhibit good taste and also show a proper conception of the fitness of things; for it is possible to mount any print in two totally dissimilar ways, both of which may harmonize perfectly well with the print, both of which may show excellent choice of combining tones and colors, and yet one of which will totally destroy the idea, the mood, the message of the picture, while the other will, in no small degree, contribute to its support. There is therefore the necessity, not only of selecting a tasteful mount, but of trying various combinations which fulfil this condition, in order to discover which will best help to support the basic idea of the picture.

Negatively, the mount must not be in the least degree insistent; and it must be carefully borne in mind that insistence does not depend so much upon the violence of the mount — indeed there are cases where a violent mount is required, and, when used, does not appear violent — as upon failure to hide the fact that care has been taken to "show off" the print, from casual view. In no operation has the maxim *ars est celare artem* more direct and important application. The simpler the means used to completely accomplish the end, the less is the danger, in mounting and framing, of overdoing, of adding just the little extra touch which gives you away. Multiple mounting is a very useful procedure; but it may be taken as true that whereas the usefulness of multiple mounts reaches a maximum very rapidly (in our opinion, at *two* mounts) its dangers, both that of inharmonious effect and that of insistence, increase as the square of the number of mounts used. On the principle that the farther we go away from home to take an "awful illustration" the less likelihood there is of broken heads as a result, we should like to refer to a print by Mr. F. H. Evans which we saw some months ago. We take an English example with the more readiness because our English photographic friends have the habit of referring to the use of a whole pad of superposed mounting papers as "the American method of mounting"; why, we do not know, except on the principle that to label a thing "American" is, with some of them, the most convenient and quite the politest way of damning it. Mr. Evans is known to the whole photographic world as a painstaking and tasteful photographer, of cathedral subjects chiefly; and we suppose this print we saw must have been one of his delicate platinotypes of cathedral architecture. We say we suppose so, because our attention was so taken up with the beautiful assortment of papers (four or five of various widths and of charmingly harmonizing creams and grays) which surrounded his print, and with the strikingly designed monogram embossed on the mount, that we really forgot to look at the photograph itself. Now, Mr. Evans is one of the few photographers with the sharpness of taste which permits the selection of completely satisfying combinations of several superposed mounting papers of various widths and tones; and yet that mount would have completely drowned a photographic conception of far greater strength and originality than anything Mr. Evans has yet given to the world. Here was an unmistakable demand of the observer that he admire, not the print, whatever that was, but the mounting, executed with such loving care; and of course, the observer had no choice but to obey.

The proper presentation of the print thus offers only a narrow channel between Scylla and Charybdis; and it is therefore small wonder that there are periodic revolts against any sort of mount whatsoever, and a tendency to close-framing. Apart, however, from the difficulty arising out of

H. M. KING FREDERICK AUGUSTUS OF SAXONY JAMES AURIG, DRESDEN, BLASEWITZ
German Professional Section, Dresden Exposition

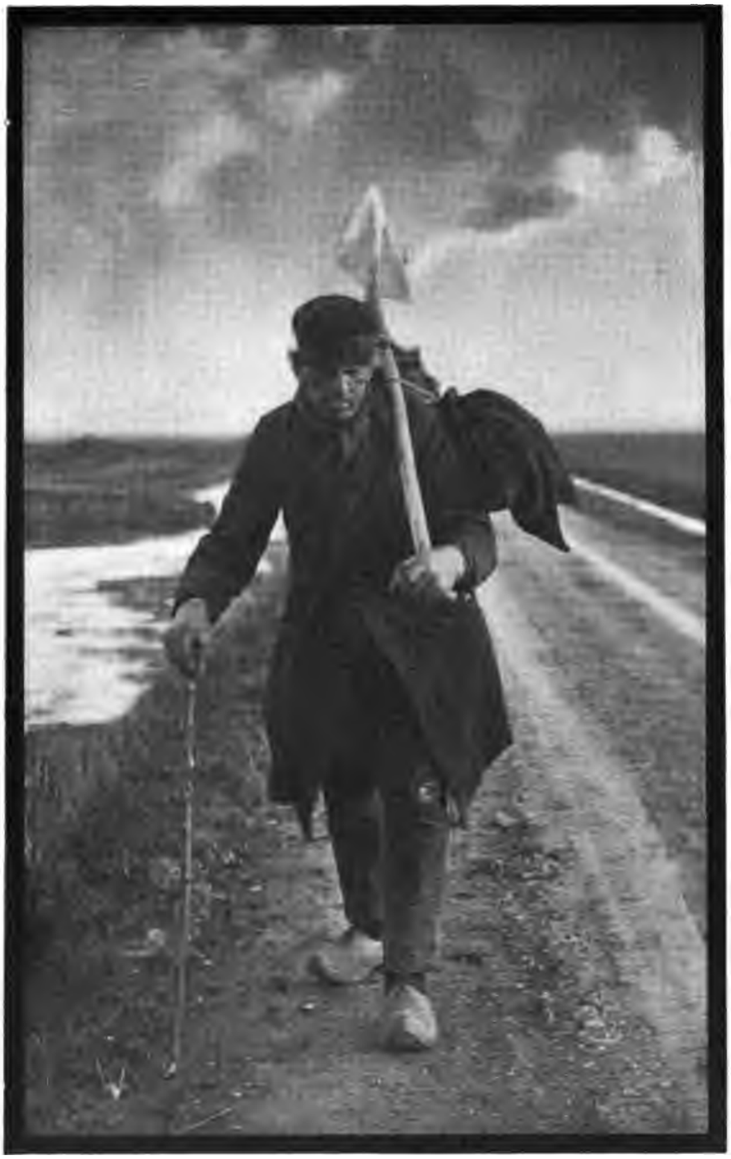
the fact that the frame now assumes more importance and must consequently be treated on the same principles as we have outlined for mounting (a not by any means easier matter), close-framing is really only advisable for prints which are to be hung under such conditions that they can be shown to advantage by a proper arrangement of their surroundings, and made to fit in well with their environment, as, for example, at home. As regards work for exhibition, there is no point in discussing the relative merits of close-framing and mounting; except in very rare cases, where the omission of the mount helps by giving an additional effect of "bigness" to a subject treated very broadly, the mount is, for exhibition work, far preferable. In the first place, it helps a print in its competition for attention; in the second place — and this is really the important matter — it separates the print from adjacent prints and provides a harmonious and effective ground for it. How much a print can lose by the *close* position of another of a contradictory effect, and how much of this loss can be prevented by the mere space and tasteful background provided by a proper mount, any photographer who has had to do with "hanging" an exhibition knows.

Accepting the mount, then, as more or less a necessity, it is impossible to formulate rules for satisfactory results. As already indicated, it is largely a matter of trying different papers until a satisfactory result has been reached; and by a satisfactory result is meant one which assists the print to convey its intended effect. It is well not to be too afraid of conventionality in mounting and framing. The less it is necessary for you to overstep the bounds of ordinary practice in such matters the less is the danger of the mount attracting more attention than the print. The proper place for the exercise of originality is in the selection of the picture, and in the work which intervenes between this and the finishing of the print; anywhere and everywhere but in the selection of mounts and frames! Misplaced ingenuity in evolving startling or elaborate schemes of presentation is a poor substitute for originality of conception or of effect in the print; and if the latter qualities be also present, the effect of a competition for the observer's eye between print and mount will not assist them by any means.

Through the gradual effect of trial and comparison we have ourselves adopted as our standard practice, usually followed except for some good reason, the simplest form of double mounting, consisting of a main mount and a relatively narrow insert, usually varying from ¼ to ½ inch in width, around the print. We have been convinced by abundant experience that an exhibition gains immensely by homogeneity of mounting, and we see no advantage equivalent to this to gain by variations which we might otherwise adopt in the method of mounting. We find, on the contrary, that such limitations as the method imposes lie almost entirely in the difficulty of obtaining papers of certain tints, and are consequently common to all methods. Often the best method is to select some paper for the main mount which is of a tone more or less neutral, both as regards depth and tint, to the print, and to select for the insert a paper which, while never clashing with main mount or print, is so chosen as to bring out, like a touch of sauce, the tonal characteristics of the print. Of course this rule, such as it is, has nothing like general application, but is often departed from. The narrow insert, however, certainly affords the opportunity of adding a little, unobtrusive touch which seldom fails, if properly applied, to greatly intensify the general effect.

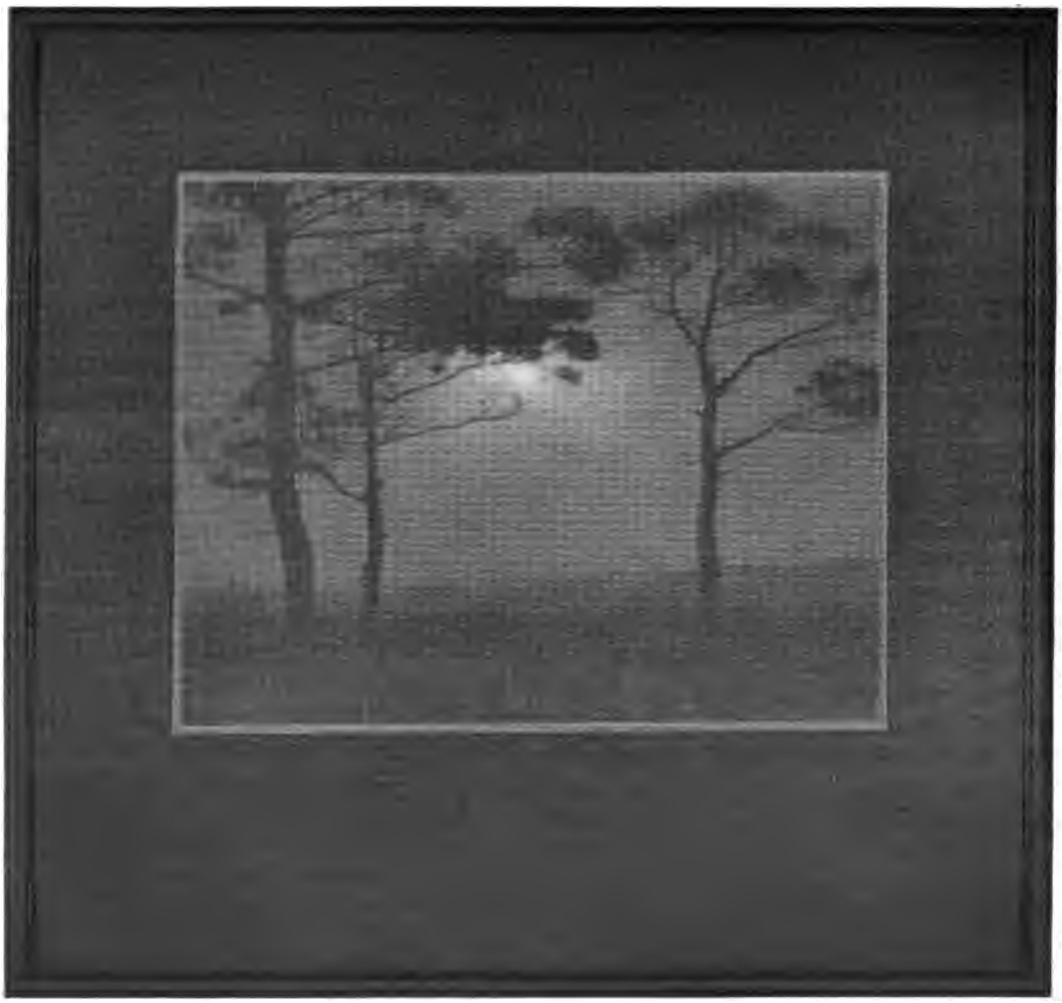
Cover papers of various kinds form the chief material of selection, and the photographer will do well to be supplied with a very wide variety of the most useful and least objectionable tints. It is impossible to have too varied a supply; a few dollars will purchase a couple of hundred sheets, and the more assorted these are the more likely is the worker to be able to pick out just the right shade for his print. Trials are conducted by laying the trimmed print on a sheet of the paper selected for the trial mount, with the trial insert provided by another sheet of paper so placed that only a thin edge projects on two edges of the print, giving, as far as these two edges are concerned, a pretty accurate idea of how the whole combination will appear. A long fund of patience has sometimes to be drawn upon before anything quite satisfactory is found. Sometimes one finishes with the conviction that the whole thing would be much better with paper of a tint which is not at hand. Particularly is this likely to be the case when mounting prints on some of the richer dark brown tissues, for example, "transparency black"; frequently these seem to call for a cool, very dark brown mounting paper which doesn't, apparently, exist as an article of regular commerce. At all events, such a paper has yet eluded our persistent search. Grayish browns, of a yellowish cast, are common enough; so indeed are the lighter browns of a pleasantly cool tone; but a rich dark brown cover paper, really cool in tone, would fill a gap indeed. Practically all of the darker brown papers of this type are of such a crude, warm, reddish tone that after a heartbreaking hour or so spent in attempting to find something that will "fit" the rich, cool quietness of the better carbon browns one frequently turns to cold grays as the next best thing, and contents oneself with a mount that, while harmonizing well, falls somewhat short of what it should be. This particular range of tint is, however, about the only one in which such a hiatus exists; in other cases one will find no difficulty, provided one has a reasonable selection of papers to experiment with, in arranging a suitable combination; in fact the point for consideration will usually be, which of several combinations is the best.

As regards the operation of mounting prints of the size 11 x 14, a few hints may be useful. Use a stiff pulpboard, and begin by pasting the main mounting paper on one side, and a similar piece of paper on the other. This will assist in preventing curvature of the mount when dry. (Ordinary stiff flour paste is the cheapest mountant, and as suitable as any; one small advantage of carbon



THE MOLE CATCHER
B. ZWEERS, HAARLEM
Dutch Professional Section, Dresden Exposition

EVENING SHADOWS
Photo-Pictorialists of Buffalo



PINES *Photo-Pictorialists of Buffalo*

prints is that one does not have to be continually on guard against the introduction of nocuous chemical agencies through mounting papers or paste.) The now covered board is placed under pressure by covering it with a similar piece of board and placing one's letter-press on the latter, and the print is now mounted on the insert paper, allowing a wider edge on the latter than will be needed. The insert is then trimmed down to the required width (usually, of course, it will be left wider at the bottom). This method of procedure has two advantages: firstly, it avoids the difficulty of properly centering the print on the not much larger insert and the bad effect resulting from the smallest deviation from accurate centering; secondly, it allows of the accurate parallelism of the edges of print and insert, and avoids the unsightly effect due to slight but often unavoidable deviation from exact rectangular form in trimming print and insert separately. Finally, the insert to which the print is now fixed is pasted on the selected position of the main mount. It is advisable, in mounting carbon prints to cover the print with a fluffless blotter when applying pressure, rubbing or squeegeeing, the surface being tender when damp through permeation of the print by the moisture of the mountant. When satisfactory adherence has been secured, the print is covered with fluffless blotting paper, a piece of pulpboard at least as large as the mount placed on top, and the whole left under pressure (*e.g.*, by putting the letter-press on) for half an hour or so, after which it is removed and allowed to complete drying.

Framing a picture so mounted deserves a word or two; the best frame for the purpose is a narrow one of the simplest possible pattern, and of a tint which agrees well with mount and picture As a rule the frame should be somewhat darker than the mount, and similar in tint. It need not be stated that an easy way to get a picture framed wrong is to leave it to the framer's mercy without either selecting the frame molding or giving explicit and definite instructions regarding it. Even at best you are liable to have difficulties, as the framer always knows what is good for your picture a great deal better than you do, and unless carefully watched, is liable to act accordingly!

* * *

And now we must bring these articles to a close. Our object in writing them has in no way been to offer anything novel or unknown; it has rather been, firstly, to attempt to stimulate interest in a branch of pictorial photography of which the really serious pursuit is too much neglected. and, secondly, to assist comparatively inexperienced aspirants to successful work in that branch by pointing out the principles and methods which, as experience has taught us, afford the readiest means of attaining or approximating to the results aimed at with the minimum of technical difficulty and manipulative complexity, and so to save them some of the enormous waste of energy which nearly every pictorialist must have to look back on as characterizing his earlier attempts to master his medium. It has been very encouraging to us to learn, both directly and indirectly that we have met with some success as regards the second of the objects stated; and we hope that our exhortations will also not have been without success in inducing some of our readers to cultivate the serious study of landscape work. The best work in landscape photography is still to be done; the field is open to every photographer, wherever he may be. Our own pictures have almost entirely been drawn from a neighborhood of about as little natural beauty as can be conceived. a region in which even our favorite working spots are anything but the paradises of well-laid out poplars which some of our distant friends credit them with being. Our pictures, such as they are. are the result of long search, often year-long work on the same subjects, and constant endeavor to produce a picture rather than a photograph of a beautiful spot. To the worker with persistence, and a steady endeavor to keep in view merely the picture that is to result and not the view as his eye sees it by a casual glance, success is usually possible. The first steps will be taken in that direction when he ceases to take pleasure in mere technical proficiency, and begins to recognize when a photograph is simply a photograph and nothing more. If then he is able to grasp and act on the idea that the camera is a tool to his hand and not a master to be slavishly followed, he is on the road. If, finally, he judges all his work by the standard of expression of character and beauty he is on the *right* road, and we wish him good luck.

How to Remove Yellow Stains on Bromide Papers. — Add as much alum to 10 ounces of water as you can make it dissolve, *i.e.*, until on adding more it refuses to dissolve; then add 3 drams of strong hydrochloric acid. Leave the prints in this solution until the stains have disappeared; then at once wash well, and allow to dry.

Yellow stains often occur on gaslight papers, and although the above given solution may sometimes remove them, it is generally quite impossible to get rid of them. The cause is under-exposure and too long development, or else not taking care that the prints are kept well separated in the fixing bath. In either case the remedy is obvious.

A STUDY MARY CARNELL, PHILADELPHIA

ENLARGING UPON GASLIGHT PAPER

JAMES THOMSON

EXPOSURE

BEFORE exposing a large sheet, take some 4 x 5 paper and cut it up into inch-wide strips. Test the light with one of these strips arranged on the board, so that some prominent portion of the negative will print. Develop the strip, and if exposure is correct, paste a small piece of paper on the negative, and record the time. Then proceed to expose the large sheet on a similar basis. There being now a record of time it took for that character of negative, exposing with others will not be so difficult. Daylight, however, is so variable and so deceptive, it is the part of wisdom to test the light with a strip of the same grade of paper one is about to use before exposing the large sheets.

Classify your negatives, and get some idea from a practical test in regard to exposure needed when the light is at its strongest. All exposures should be made in the shade, — a north light being best, and when from a window, *the sash should be raised.* Exposure through glass cuts off considerable light. *Never expose to direct sunshine.* Thus getting approximate time of exposure with classified negatives, daylight enlarging may be robbed of some of its uncertainties. In furtherance of this, working hours should, as far as possible, be under the same conditions, the same hours of the day, the same conditions as to weather; all should be constant when possible.

PRINTING WITH AN ACTINOMETER

By employing an actinometer — the same as is used in carbon work all chance is eliminated, and correct exposure assured. All my work is done with such a screen, with which I test the light *just before beginning enlarging.* To print from some particular negative requires a certain amount of light which, once established, is constant, and it matters not what the condition of the weather, the time number on the corner of the negative insures a perfect print every time. Actinometers can be had of dealers in carbon materials, but it is not a difficult matter to make something of the kind that will answer our purpose sufficiently well.

HOW TO MAKE AN ACTINOMETER

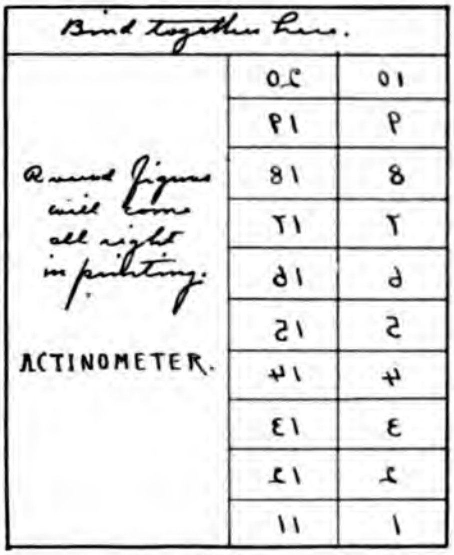


Fig. 4

How to make a test screen is well described in *Photo Miniature* No. 78, and from that I take the liberty of quoting: "To construct a screen, take a clean glass (4 x 5), mark the size of the glass on a sheet of paper by pencil lines around the outside, then removing the glass, divide the space lengthwise into eleven equal spaces, also divide at right angles into four equal spaces, as shown in the accompanying diagram. (See illustration 4.)

"Now lay the glass again over the ruled sheet and touch the glass over the top space with some adhesive. Fasten down a piece of the tracing paper to this. Again apply adhesive as before upon the upper space, and fix a second piece of paper to this, overlying all but the bottom space. Continue in this way until ten layers are superimposed, each one space shorter than the other. Thus the screen has ten gradations. Now superimpose ten pieces of paper on each other and fasten them with adhesive together at the top, cut them to an even edge with a knife and a straight-edge, and fasten the whole down on the glass, *covering three fourths of its width;* that is, three of the four ruled spaces, leaving the left-hand space uncovered. There are now twenty gradations in the screen. The difference in opacity between the gradations will, of course, depend upon the transparency of the paper.

"The gradations must now be numbered, the figures being reversed so that they may come right in printing. The easiest way to do this is to write them on thin celluloid, — a piece of a cleaned-off film will do; lay this on the ruled paper diagram, and, beginning at the *right-hand corner,* write the figures in Higgins' India ink, numbering upwards 1 to 10; then, beginning at the bottom again, number the second row upwards 1 to 20. When dry, turn the celluloid over and lay it down on the screen, when the numbers will be seen to come in their proper places, *but reversed.* Fasten it down by binding the top with black passe-partout binding. The celluloid not only serves to carry the numbers, but also protects the paper from dirt and silver stains."

The screen, as described, has forty gradations, but twenty serve our purpose, unless workers wish to complete it by adding twenty more thicknesses of paper.

ON THE WATT — PROF. DR. WIEDING, HUSUM

German Amateur Section, Dresden Exposition

The best paper to use is onion skin tracing paper (oiled), the same as is used by draftsmen. It may be had of dealers in art materials; a couple of sheets will do. Tissue paper will not answer.

HOW TO USE THE ACTINOMETER IN PRINTING

On some bright day expose strips of sensitive paper under some negative from which prints are desired. On development, correct exposure having been ascertained, a note of the time it took should be made. Then with the actinometer in a printing frame, placing over the numbers a strip of Solio, expose for ten seconds in the sun at open window. Note the highest number printed, ***the number just discernible.*** Make successive exposures thus altogether a full minute, divided into intervals of ten seconds, make a note at the conclusion of each interval of the highest just discernible number. If the correct exposure for that particular negative has been found by experiment to be twenty seconds, note what number printed by the actinometer comes opposite that time, and mark that number on the corner. Supposing the number to be ten, and it took twenty seconds to impress it upon the Solio strip, that number, then, is the exposure time (using the gaslight paper) for that particular negative, under conditions that then prevail.

Some other day a print is wanted, weather and light conditions seemingly about the same. However, in printing a strip of Solio under the actinometer, it takes forty seconds, not twenty, to reach the number ten as noted on negative. We were in error regarding the light, the haze in the air being responsible. Forty seconds, therefore, is the exposure time for that negative at that particular time, double what was supposed to be required. Keep the actinometer record handy. When about to start enlarging, notice the number on the corner of the negative, put a strip of Solio in the actinometer, and print for a minute, or if one desires, until the number upon the negative is reached. If it coincides with the original record, all right, but whatever it amounts to, it represents the exposure time at the hour in question. It matters not, therefore, what are light conditions, one has but to print under the actinometer at intervals of ten seconds until the desired number upon the test screen is reached, the time taken to reach that point being exposure time for the enlargement.

This time, of course, varies somewhat according as there is diversity in the speed of papers employed, but a record must be kept of the grade of paper originally employed. Soft Cyko, as may be noted, will make a print in fifteen seconds, while on portrait Argo eighteen seconds are required.

Exposure is governed by developer. Thus, short exposure demands a strong solution, a long exposure a weak one. Also for soft effects give a short exposure with development in full strength solution, for very soft prints metol being advisable. For brilliant prints give a long exposure, and develop in diluted solution, say M.Q. 1 to 1 and 1 to 2 or 3.

Short exposure and development in full strength solution results in blue-black tones.

Long exposure and development in dilute solutions results in blacks of a warm tone.

Extreme exposure and development in dilute solutions (1 to 4 or 5), well restrained with bromide, gives tones all the way from mouse color to sepia of an olive green cast.

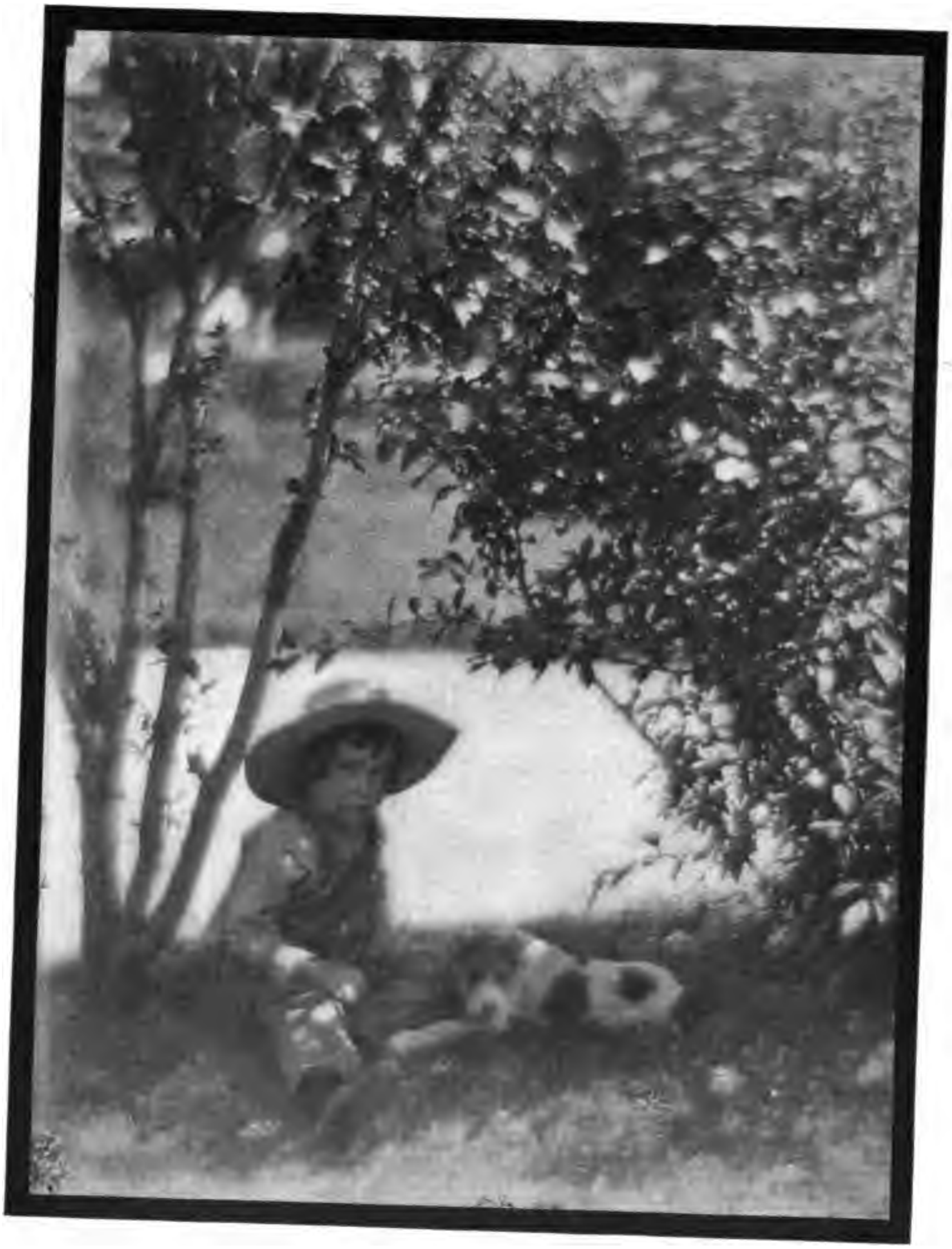
Some of these off colors, while not such as the generality of workers would like, might appeal to the pictorialist, being very artistic and pleasing for some subjects, especially when done on the semi-matte paper.

To avoid confusion it is better, where possible, to work with a developer that is constant. Thus I have found the Argo M. Q., diluted with an equal quantity of water, to give satisfaction. With dilution to this extent development proceeds a little slower than when of full strength, but the same exposure will work with both.

Development is with correct exposure complete in from thirty to sixty seconds. There is, however, considerable latitude in exposure; and while absolutely correct exposure with the proper strength of developing agent to complement it means a stoppage of action at the proper stage, we may considerably over-expose, and by taking from the developing solution at the right moment and immersing in acidulated water (or the hypo), stop developing action *at once*. Thus we may obtain an excellent print, albeit contrast is somewhat greater than if correctly exposed.

Referring to contrast, it is evident *that* is what the generality of camera men and women want in their prints. What matters it that "values" are ruthlessly sacrificed, providing we have pictures with "sparkle," "brilliancy,"—terms that are used to denote spottiness and excessive contrast? A glance at specimen enlargements in the windows of dealers in photo supplies discloses this tendency to extreme contrast to the destruction of such detail and fine gradation as the negatives from which they were made happened to possess. The demand for the contrast producing carbon gaslight papers is still so great for general purposes, that it is with difficulty the softer working grades can be bought at all, the average dealer not finding the demand sufficient to warrant keeping them in stock. The experience here recorded contemplates the employment of such grades of paper as will insure preservation of such values as may be found in a negative. If still further contrast is desired, the worker should use the regular contrast producing papers, such as Argo carbon, Cyko contrast, and Velox carbon, doubling the exposures and diluting developer.

In the record of exposures herewith submitted it will be noticed that the same exposure was given for an 8 x 10 print as was accorded the 6½ x 8½ size. This is explained by the fact of the 6½ x 8½ enlargement having been made about a couple of months later, at which period the light value was considerably lower. For full information regarding variation in light consult some exposure



N I WAS A LITTLE BOY
RUDE KÄSEBIER, NEW YORK

table, such as the Photo Beacon exposure card. Speaking roughly, an arc exposure of twenty seconds on the 30th of June would require to be doubled by the 30th of October and quadrupled by December 30. Allowance, therefore, should be made for such required increase by addition to exposure from month to month, the exact amount being easily figured.

Once the light measurer or actinometer comes into play all such speculation is done away with. A test being made upon Solio, Disco, or other grade of print-out paper, at any and all times establishes the exposure factor for enlarging upon the gaslight paper at that particular time, but none other. The testing, however, must at all times be done with same brand of paper.

HOW TO MAKE A HOLDER

A frame made with a flush panel, or a plain board flush, cleated at the ends, would be best; but in the absence of anything of the kind a pine board free from knots and perfectly level will answer. It should be planed on the edges and fitted to run smoothly in the place made to receive it. In thickness it should be from ⅜ to ½ inch. Strips of wood ¾ of an inch wide, and ¼ inch thick, must be bradded along the front at the sides and bottom (marked A, B, C on the drawing). Superimposed upon these strips must be strips cut from a black carbon "Melton" mounting card, the same as is used for the slide; these must be a half inch wide, and cut with a sharp knife and a straight-edge so as to have no ragged edges. Other strips of card, but this time ¾ inch wide, are glued down upon the spaces marked A, B, and C, which completes that portion. A wide piece of card of the same thickness as the other is then fitted to bridge the space across the top portion of holder (space marked D and "top of holder"). On top of this is placed a piece of wood an inch and a quarter wide and three quarters of an inch thick (marked in drawing "top of holder"). This must be secured at the ends only by a screw, as suggested in sketch. This piece of stout wood keeps the board and thin card from warping, and also keeps the opening for entrance of the slide *at an even width.* On the bottom of the holder must be nailed (not glued) a quarter-inch thick strip of wood, the width to conform with that of holder. This piece of wood is necessary to prevent the cardboard from fraying at the corners or edges. The slide must be made of the same material as the strips before mentioned (carbon black "Melton" mounting board, medium thick). The edges cut with a knife, it should slide easily in and out. A couple of thin strips clasp the top and form a convenient handle. It is a good plan to coat the edges of the card with shellac or thin glue. When thoroughly hardened it may be smoothed down with fine sandpaper. When this cardboard slide becomes broken at the corners it should be renewed. Outside, the holder should be blackened. Inside it may be left white, and the various sizes of enlargement drawn in pencil as is indicated upon the plan.

Positives being easily made, of necessity enlarged negatives either on paper or glass are also possible, premising the necessary image is provided. For negative making, a good positive either on fine carbon tissue or a Seed plate should be utilized; but this is another story, to be treated of perhaps at some future time.

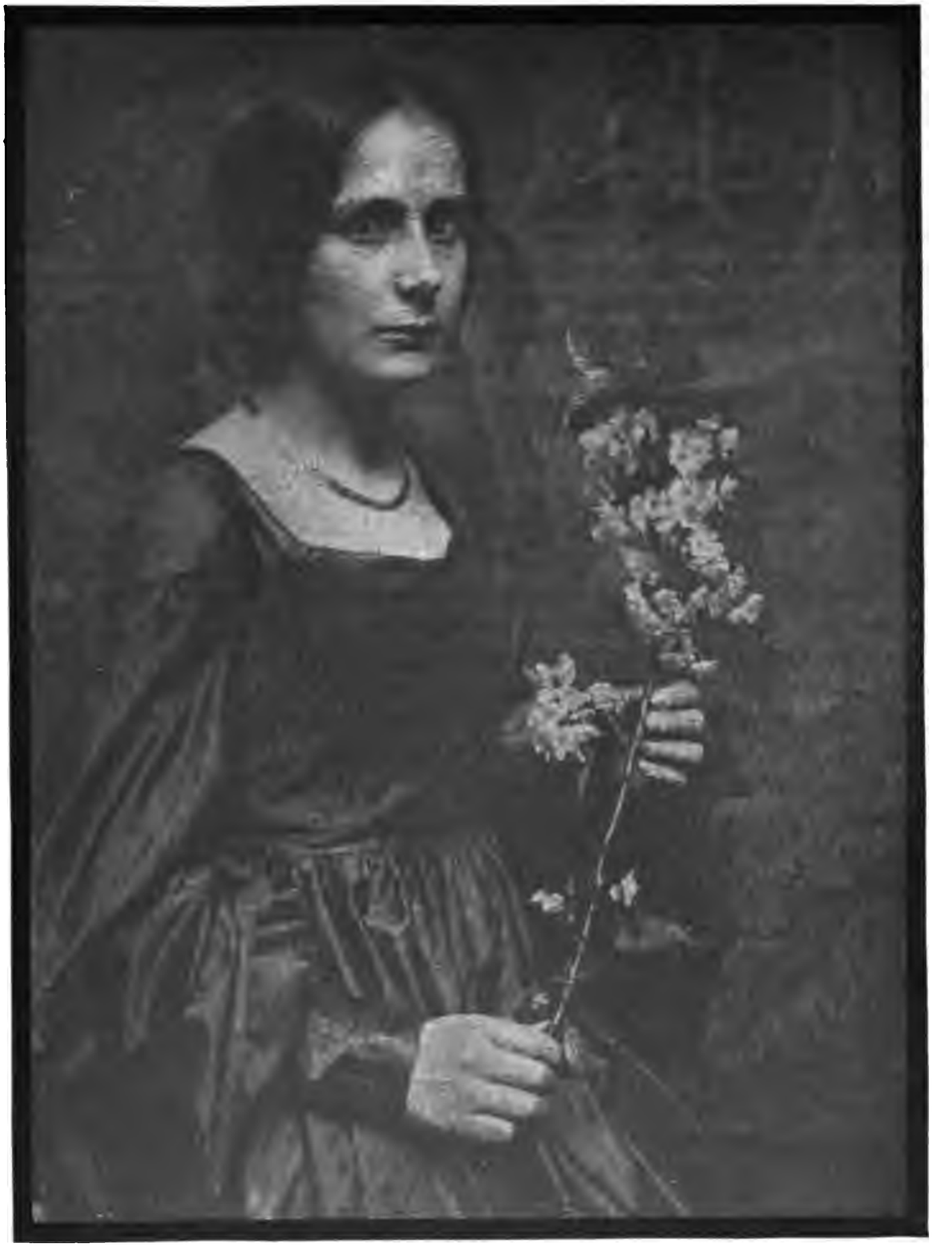
The following are the developing formulas employed in the foregoing experiments: —

METOL-QUINOL DEVELOPER (ARGO)

Water	10 ounces
Metol	7 grains
Sodium sulphite (dry powder)	120 grains
Hydroquinone	30 grains
Sodium carbonate (dry powder)	200 grains

When mixed, add from 15 to 25 drops of bromide of potassium made up as follows: —

Water	10 ounces
Bromide of potassium	1 ounce



A GUM PRINT
GERTRUDE KÄSEBIER, NEW YORK

Metol Developer

Water	16 ounces
Metol	75 grains
Sulphite of sodium (dry powder)	1 ounce
Carbonate of sodium (dry powder)	120 grains
Bromide of potassium	5 grains

For soft prints with platinotype qualities use full strength metol. Still softer results may be had by leaving out the carbonate of soda altogether. Metol will work with the sulphite of soda alone.

It is advisable to use an acid fixing bath, and when washing not to let water run directly upon the face of the prints. Should there be any indications of blistering, take from the running water and soak in alcohol for a while. Then on some other day, when conditions are more favorable, complete the washing. Soaked in alcohol, the prints will dry quickly, and in this way prints may be saved, even after blisters have developed.

Figure 1 delineates the enlarger as it appears when fully extended. Spiral springs (which show on sides of base) are attached to a strip of wood three inches wide and half an inch thick. This strip pressing hard upon the back of the holder keeps it close up against rebate in rear of the box precisely as is the plate holder in a camera.

Figure 2 gives a sectional view of the upper box, showing how the inside telescopic boxes operate.

Figure 3 shows how a holder for the sensitive paper may be made. Space in depth behind the slide is sufficient to permit the use of small size thumb tacks to fasten sensitive paper during the exposure.

Figure 4 gives an idea of how an actinometer may be made as fully described herewith. Such a test screen is valuable in measuring the gradations of printing paper. Should there be printed a limited number, say twelve squares, this registration indicates a short and steep range of tones. Should all of the twenty squares be printed, the paper has a long range of tones. Thus the worker may test the grade of gaslight paper he is using and determine exactly the number of tones upon the screen it is capable of rendering.

The after treatment of black and white prints whereby sepia tones are obtainable is fully described in the free booklets or manuals sent broadcast by the manufacturers.

In focusing, a negative having considerable contrast is in order, also in obtaining a particularly sharp image a magnifier, such as a hand reading glass, will be found most useful.

On the other hand, where diffusion or slight softening of the image is desirable, a single turn of the screw of the lens system will give it. For still greater diffusion, disarrange the box carrying the negative either by drawing it out or pushing it in, more or less as occasion demands.

A reasonably sharp image follows the use of No. 8 stop (f. 11.5), but if still "keener kutting" is wanted, the smaller apertures may be called upon to give it, with of course a proportionate slowing up in speed. One minute exposure with stop U. S. No. 8 means two minutes with No. 16, four minutes with No. 32, and eight minutes with No. 64.

To reduce and clean up over-done gaslight prints one may use Farmer's reducer.

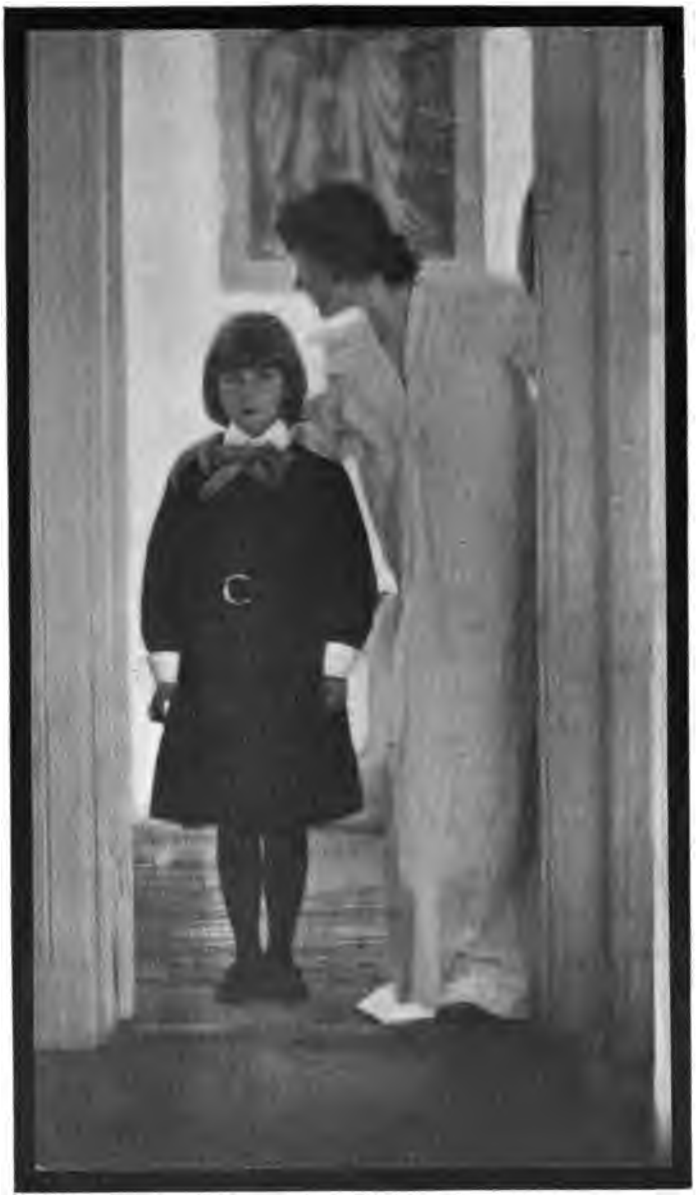
To intensify flat or over-exposed mealy-looking prints, bleach in the following solution:—

Water	4 ounces
Bichloride of mercury	100 grains
Bromide of potassium	100 grains

Wash for thirty minutes, then redevelop in the following:—

Water	4 ounces
Sulphite of soda (dry powder)	180 grains
Metol	8 grains

Wash for thirty minutes and dry as usual.



BLESSED ART THOU AMONG WOMEN
GERTRUDE KÅSEBIER, NEW YORK

BAB DJEDID DR. JOHANN LÜTKEMÜLLER

Austrian Section, Dresden Exposition

A LITTLE ABOUT EXPOSURE

FRANK M. STEADMAN

A FEW evenings ago I took a picture which illustrates so plainly the advantage of knowing the strength of the light that I am sending you a copy with the data of exposure, thinking that perhaps your readers may find it of interest.

My own system of measuring the light is based on the "first appearance time," or the time required to obtain the "least visible tint" on gelatine P.O.P., as Citrate, Disco, Solio, Sunrae, etc. In order to use a faster tinting medium, as the various meter papers, gaslight paper, film emulsion, etc., it is only necessary to know *how many times* faster than P.O.P. any particular one tints.

The film emulsions tint practically sixteen times as fast as P.O.P., and at the time of making the exposure for the enclosed photograph, considerably after sunset, the light measured thirty-two seconds with Eastman film. That is to say, thirty-two seconds' exposure to the sky created a "just visible tint" on a strip of the film mentioned, when exposed behind an opening cut in the cover of an ordinary note-book, the corner of the cover being raised to examine the tint.

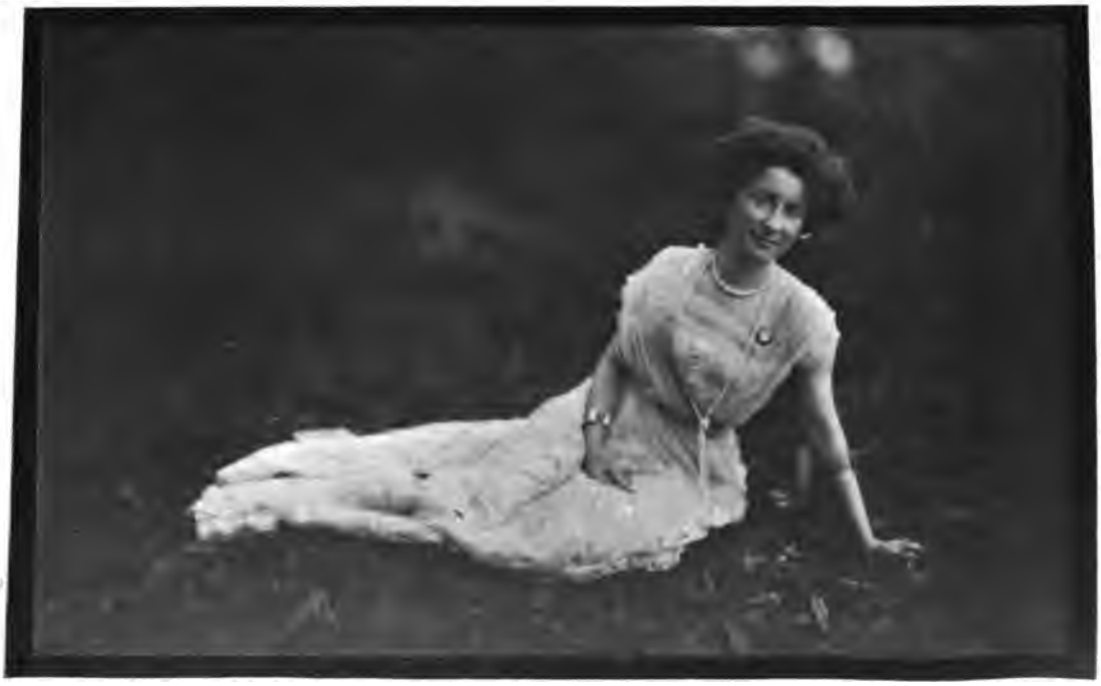
Now, since the film tints sixteen times as fast as P.O.P., the latter, or "P.O.P. time" was, of course, 16x32 seconds; or, say, 8 minutes.

According to my method the "P.O.P. time" of the light is the exposure with the "speed diaphragm" of the plate or film used. This, for the Eastman film, is No. 16; U. S., for "average complexions," and No. 32 for "fair complexions." The subject was of the latter class, and it was known, therefore, that the exposure should be eight minutes with U. S. 32 (or some equivalent exposure). This is equal to one minute (or, exactly, sixty-four seconds) with U. S. 4, or sixteen seconds with U. S. 1 (f. 4), which exposure and diaphragm were actually employed.

The "P.O.P. time" of the light with a high sun on a clear day is one eighth second. *This is the maximum light condition on the earth's surface, as caused by the sun and sky.* When the sun is exactly at the horizon, and the day clear, the "P.O.P. time" is eight seconds, or one sixty-fourth as strong as the maximum. But when this photograph was made the light measured eight minutes, and was therefore only one sixty-fourth as strong as the light at sundown and only about one four-thousandth as strong as the maximum sunlight.

I believe that photographic workers are unnecessarily confused as to exposure methods, or rather are too much prone to consider that they must "swallow" some particular method or scale, in order to be saved. On the contrary, any one who is blindly dependent upon a certain system has still to learn the basic facts. What is needed is to *think light strengths in simple numbers*, the same as we think distance, weight, temperature, etc. When the worker arrives at this point, he will be about ready to lose no more plates or films through faulty exposure.

The practical value of this attitude is certainly well attested by the accompanying illustration.



MRS. MARY BANKS MARTIN F. M. STEADMAN, CONCORD

SOME NOTES ON OPERATING

ARTHUR HAMMOND

I BECAME very keen indeed on indoor portraiture, and spent a good deal of time and wasted a good many plates in practicing on various long-suffering members of my family. I picked out one of my best results and took it round to my expert friend for his opinion and criticism.

"This is very satisfactory indeed from the technical point of view," he said; "the lighting is soft and well graded, and you have got roundness and modeling and just about the right amount of contrast."

"You speak as if there were still something wrong, though," I said resignedly. "I think it is pretty good myself, but if there are any faults in it I wish you would tell me what they are."

"In portrait work," was the answer, " there are other things to learn besides the purely photographic technique. That is only the beginning of it all; and when you have become thoroughly familiar with the intricacies of lighting and have mastered the technical problems of exposure and development, you have even then acquired merely the elementary grammar of the art and have only laid a foundation on which to build up further knowledge and experience. There are many other problems to be faced besides these photographic and technical ones. There is, for instance, the human nature part of the work,— the ability to depict a natural, characteristic, and pleasing aspect of your sitter and secure a result that shall be something more than a good photograph, one that may be described as a 'speaking likeness,' and one in which there is some indication of your sitter's character and individuality.

"This may seem to be a difficult proposition, but it is, to a great extent, merely a question of tact in dealing with the sitter. This picture here," he went on, picking up my treasured photograph, "I know this is your young brother, Charlie; it is quite sufficiently like him for me to recognize who it is, but it does not present an aspect of him that is at all familiar to me. I have never seen him look so stiff and wooden."

"But people always do put on an unnatural expression when they are being photographed," I objected. "I did ask Charlie to try and look natural, but I had to give a long exposure and he was trying to keep still."

"You told him to keep still, I suppose."

"Sure," I replied, "and he didn't move at all; it is all quite clear and sharp."

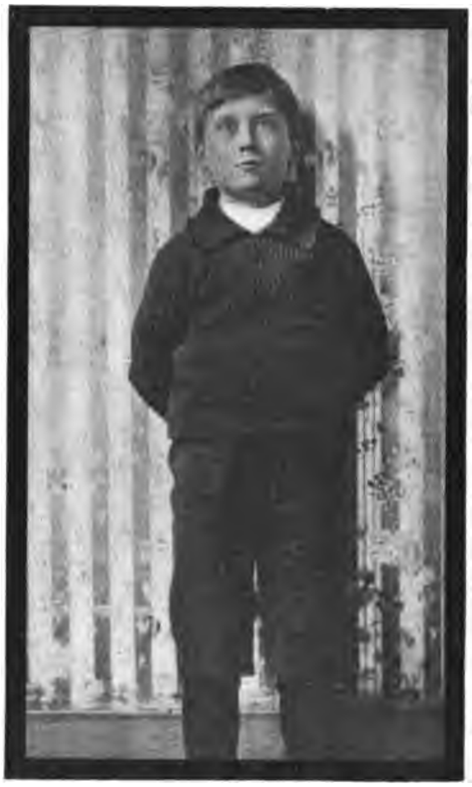
"That is just what you should not have done," said the expert; "you appear to have rubbed it in too much about keeping still, and it is his anxiety to carry out your instructions that causes him to wear that worried look."

"But I had to tell him to keep still; he would have spoilt the picture if he had moved."

"Certainly; but that is where the tact comes in. Don't make so much of the necessity for keeping still; after all, it is only for a second or two, and the less fuss you make about it, the better for your results. Let your sitter move his head, let him blink and breathe quite naturally and without being worried. All you have to do is to intimate gently that you would like him to keep fairly steady just while the exposure is being made. The main thing is to work quietly and avoid worrying your sitter, try and get him to forget all about the camera as much as possible, cover up the camera with conversation. Another unfortunate point about your picture is the attitude of the figure. It always gives an impression of unnatural stiffness to have the face and body so exactly square. A slight turn of the head takes away this stiffness at once and gives variety and more pleasing lines."

"But haven't you noticed how people always will stand or sit like that, squarely facing the camera and staring straight at it? Even I have noticed that."

"You are quite right; but even if they do, you are not obliged to take them so. Here, again, is an opportunity for the exercise of tact. If the sitter be your own small brother, or any other small boy, you may use brute force, if necessary, to make him change his attitude, but with most other people you should use tact. Get them to sit around at an angle and then turn the head towards the camera if a full face picture is wanted, but never try and force your sitter into any particular attitude or position; let him pose himself. Everybody has his or her own particular and characteristic attitudes, and the more of this naturalness and characteristic pose you can get into your photograph, the more likely it is that the resulting picture will be successful. It is not by the face only we recognize our friends; even from a back view, or in a dim light in which it is impossible to distinguish the features, we can always tell who it is when it is any one we know at all well. There is a lot of individuality, too, simply in the poise of the head; some people hold the head well up, others lean forward a little, and with other people again it is natural for them to hold the head a little to one side or the other. You should observe these things and try and get them into your picture. Do you ever notice people in the street or in the cars as you travel around? It is interesting and instructive to study human nature in this way, and it will help you to attain quickness in noticing characteristics.



"There are other points, some technical matters, which I see by this picture you have not thought much about. The height of the camera in relation to the sitter is a most important point that you should always notice. In this print of yours I can see that you had the camera much too high and you have consequently got the head foreshortened and have got what an artist would call 'bad drawing.'

"I guess I know what you did; you were using your view camera on a tripod stand and you set up the camera so that it was at a convenient height for you to stand up to, but your sitter's head was very much lower and you had to tilt the camera forward in order to get the picture on the plate. Was not that so?"

"Yes, I think that is what I did. What is the proper height for the camera, anyway, and what difference does it make?"

"For a head and shoulders picture, like this one, you should have the camera at such a height that the lens is about level with the sitter's eyes. For a full length picture you can have it a little lower; but, except for special reasons, you should never have it higher."

"What are those special reasons?" I asked.

"That is a long story; I will go into that another time. There is something else I want to tell you about now, and that is something about the focal length of the lens. The usual rapid rectilinear or symmetrical lens generally supplied with view cameras for landscape work is of rather short focus for portraiture, and in order to get the face as large as you have it in this picture, you have to get the camera very close to the sitter. This again tends to spoil the perspective and 'drawing.'

"I don't know what the focal length of my lens is," I put in, "I have never bothered to find out; but I certainly did have to put the camera very close when I took this picture, so that I could get it big enough."

"There is a much better way of getting the picture big without putting the camera very close, and that is to use half the lens."

"Whatever do you mean by that? I have never heard of such a thing."

"Well, I will try and explain. Your rapid rectilinear lens is composed of two single lenses screwed into a tube, and if you unscrew one of these, either the back one or the front one, you will have a single lens left which it is quite possible to use just as you would use any other lens. This single lens will have about double the focal length of the combination, so that if you use this you will be able to get your picture big without having to get the camera so close to the sitter, and the farther away you are, the better 'drawing' you will get. There are some lenses, called convertible lenses, which are intended to be used in this way, and in some of them the focal lengths of the front glass and the back glass are different, and you then have a choice of three lenses of different focal lengths. The single lenses are not, as a rule, so highly corrected as the doublet, and are not so rapid, but for portrait work the slightly soft definition is an advantage rather than the reverse; you don't want such hard, biting sharpness in a portrait. One drawback to using half the lens in this way is that the single lens, being of longer focus than the combination, requires more camera extension, and unless you have a camera that is provided with double or triple extension, you cannot use it without modifying the camera in some way, but most of the modern view cameras have quite sufficient bellows extension to enable the single lens to be used."

A VILLAGE SCENE ALBERT MEYER, MÜNCHEN

German Amateur Section, Dresden Exposition

AERIAL PERSPECTIVE AND ITS RENDERING

TRANSLATED FROM THE GERMAN OF F. STOLZE BY FRANK ROY FRAPRIE

What is Aerial Perspective?

AERIAL perspective plays so important a part in photography that it is of the highest importance that every photographer should know exactly what it is. We must first of all consider it entirely apart from photographic reproduction. We will limit ourselves rather to the actual phenomenon and the question of how light and shade and different tones of color appear at different distances under its influence.

Even at a time when photography had never been heard of, one of the greatest minds of all ages, the immortal Goethe, had unveiled for the world a part of this secret. Even though he was wrong in combating Newton's law of color, in regard to aerial perspective he hit the nail on the head by advancing the proposition that a dark object, when seen through an illuminated turbid medium, appears blue, while conversely a bright white source of light, seen through the same medium, appears orange-red. This fact was promptly acknowledged even by the opponents of Goethe's law of color, and its truth may easily be demonstrated by experiment.

If, for instance, we view a source of white light in a dark room through an almost transparent piece of opal glass, it appears reddish yellow, while the glass, viewed by reflected light, has a bluish cast. If we have no opal glass, a tumbler of water, to which a few drops of milk have been added, suffices for the observation of the same phenomena. An exactly similar effect is produced by fog, through which the sun appears fiery red, while the fog-bank illuminated by the sun appears blue-gray. Expressed in scientific language, the fog transmits orange-red light, and reflects blue-gray light.

It does not even require a fog to show us this effect. The atmosphere, which always holds in suspension fine particles of water and dust illuminated by the sun, and beyond which is the dark void of infinite space, appears blue to us, and this blue is the deeper the less the air is saturated with water vapor. On the other hand, the sun, when close to the horizon, where its rays must penetrate for a long distance the dense atmosphere close to the earth's surface, glows with a fiery red. This color of the sun at rising or setting never lasts long. As soon as the luminary has risen a little above the horizon, so that his rays no longer have to penetrate enormous expanses of dust-filled air, he shines with white light composed of all colors, in a blue sky.

This blue color of the heavenly vault is just what gives the landscape its character. It is not only the color of the illuminated air against the background of black space, but also that of every sufficiently long stretch of air which lies between the beholder and deep black shadows. This being the case, it follows that blue, in the most varied shades, determines the character of the aerial perspective. Everywhere that one overlooks great distances, especially in the mountains, plentiful opportunity is offered for the observation of this phenomenon, which sometimes veils the distance in blue haze, sometimes spreads over it a heavy gray mist. To our perception, in the first case the mountains recede to majestic distances, and seem to increase correspondingly in height, while in the second case they move strangely near and at the same time appear to sink to mere hills. Yet they are the same mountains at the same distance!

Especially remarkable about these various appearances is that they may occur with the sun in the same position and the sky clear. But while with the tender bluish haze, in which all objects and details separate themselves most clearly from one another, the feeling of lasting fine weather fills the soul, it experiences under that hard or even dull lighting where the details are missing a depressing sensation, as if the sun must soon disappear and foul weather begin. And in fact this sensation is seldom false.

There is also a connecting link between these two varieties of aerial perspective, especially in temperate climates, — for instance, in the Alps. Instead of the blue mist, we often observe a tender blue-gray tone, which sometimes passes into a beautiful silver gray, penetrating all shadings, even to the greatest distances.

In all these occurrences the aerial perspective always tends to a definite tone of color, into which all the local tones which are visible in the foreground with their lights and shadows gradually change, meanwhile passing through the most varied range of color.

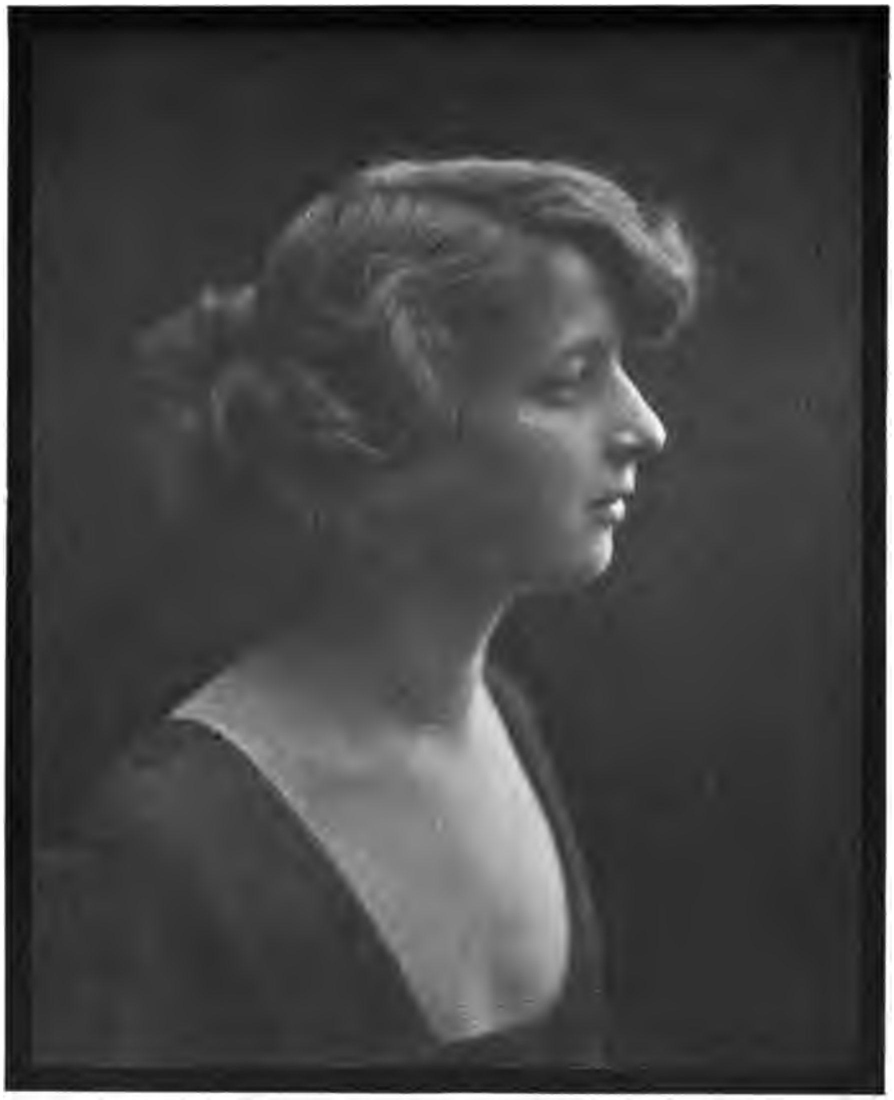
Places lighted by the sun show quite a different character from the shadows. While the former keep, at first, much of their local color, the latter pass very quickly into darker bluish tones, which contrast strongly with the former. One sees this most plainly during the dry season in tropical and sub-tropical regions. The treeless, yellow surfaces of the foreground, illuminated by the glowing sun, pass quickly through reddish brown tones to a brilliant reddish violet, while the shadows are soon veiled with a bluish mist, which is transformed to a pure blue at a very short distance. Even the sunlit spaces, however, become ever bluer, as the distance increases, so that they finally pass through blue violet to a tender luminous blue, with which the deep blue of the shadows contrasts harmoniously. The characteristic of aerial perspective is, therefore, that sunlit surfaces increase in luminosity with increasing distance, and approach light blue, while the shadow tones increase in brilliancy and approach the same color.

The result of these circumstances is that in hot countries, from a high mountain peak, one can often overlook numerous mountain chains which lift, like stage scenery, one behind another, and which are all clearly and distinctly contrasted with each other. Once, in South Persia, I saw from Kuh-i-Säfid (*i.e.*, White Mountain) sixteen mountain chains rise clearly one behind the other, beyond which one could plainly see the waves of the Persian Gulf.

REPRODUCTION OF AERIAL PERSPECTIVE BY ORDINARY PLATES

We must first investigate how far one is in a position to reproduce the effects of aerial perspective with ordinary photographic plates. If we recall the colors to which the ordinary silver bromide emulsion is most sensitive, we will immediately recognize that it is in the highest degree unsuitable for this purpose. Such an emulsion, besides blue and violet, is essentially sensitive only to ultra-violet light. This latter would give in the picture an effect which actually does not exist for the eye, if it were not in a large measure absorbed by the glass of the lens. In spite of this, the effect of the ultra-violet radiation corresponds to a certain degree with the impression made on the eye. Quite independent of the impossibility of reproduction of the light value of colors of greater wave length than the blue, wherever a strong lighting of the atmosphere occurs between the apparatus and a dark background, the radiation is so powerful that even in proportionately short distances a veil is visible in the picture which the eye does not observe in the slightest degree. Such a phenomenon may often be observed in a studio. A dark hanging, whose folds are perfectly apparent to the beholder, appears in the pictures, even under a blue sky, at times so obscured that it is absolutely impossible to obtain accurate reproduction of its shadings.

If greater distances are involved, there is often apparent, although the foreground is clear and sharp, confusion in the remoter details, which appear in the picture out of focus and as if far away, although perfectly clear to the eye. If this were actual aerial perspective, such objects, with a clear foreground, should appear quite small. Since their size, however, is much too great for this to be the case, one gets the impression of a mist or light fog. Soon comes the instant when the eye still sees strong bluish shadows which contrast clearly with the lighted spaces, which, however, completely disappear in the photograph. Wooded heights, on which the glance sees every tree sharp, are reproduced as uniform gray walls, and the outlines of the mountains against the



JEANNINE
G. L. ARLAUD, GENEVA
Swiss Professional Section, Dresden Exposition

blue sky appear weak and without detail, so that mighty chains of mountains appear not much more than near, bald, treeless hills. At the same time, the sky appears absolutely monotonous, whether there were clouds in it or not. One sees, indeed, traces of them in the beginning of the development, but soon both clouds and sky are so over-developed that they merge in a dense deposit. In the positive the sky then appears as a plain white surface, from which even outstanding violet mountain ranges with deep blue shadows separate themselves but slightly. Even when the exposure of the sky and the distance is short enough to bring out something of the details, in most cases the picture has a gloomy appearance, and if single objects in the foreground, such as high trees, massive towers, or other architectural details, are outlined against the sky, they almost wholly lack detail and appear almost black. Briefly, all attempts to get results by the use of the ordinary plate are practically useless when it is necessary to photograph illuminated air before dark shadows. In cases, however, where it is not necessary to reproduce color values, anti-halation plates may give very beautiful results in taking interiors against the light.

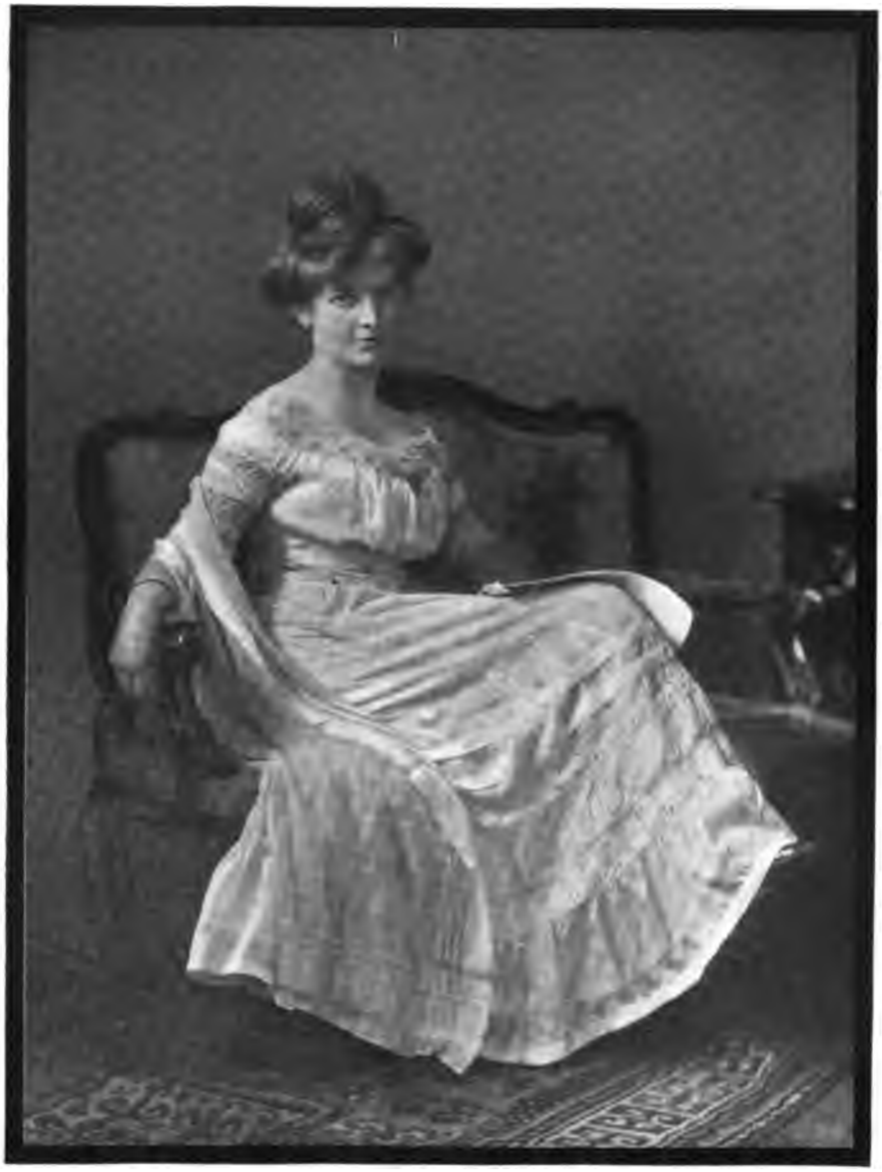
THE REPRODUCTION OF AERIAL PERSPECTIVE BY ORTHOCHROMATIC PLATES

When the first color sensitive plates came upon the market, the result was similar to that caused by the invention of stereoscopy. The thing was overdone. It became possible to obtain upon the plate color shadings which corresponded more or less to the spectrum colors; but since blue, violet, and ultra-violet light still had a disproportionate effect, it was necessary to try to cut them out by suitable light filters. The question was, What was suitable? Different people had the most diverse ideas. Color sensitiveness, without a ray filter, meant an increase in general sensitiveness. One could, therefore, by a suitable yellow filter, weaken the colors most inimical to aerial perspective so far that the degree of sensitiveness of the ordinary plates was still preserved. It was not easy, however, to determine the absorptive power of these filters. Without the filter, the distance always appeared in the negative fogged and detailless. The stronger the filter, the clearer it became and the clearer was the print. Is it to be wondered at that these means were used? Where aerial perspective did not enter into consideration, as in the taking of interiors and flat landscapes, one willingly took advantage of the increased sensitiveness and used paler filters.

It was remarkable, however, that the distance so clearly reproduced in sharp lines did not have the desired result in any respect. The distance was too transparent; it was hard, and the lack of haze was felt. The result of this was that mighty distant mountain chains did not indeed disappear like a weak wreath of clouds, as was the case with ordinary plates; but, on the contrary, appeared so near that every impression of the gigantic disappeared, and the distant range of high mountains seemed near foot-hills. It was evident that a middle course must be taken. As early as 1890, therefore, I protested against the use of various deep filters. This gave the impulse to a further important simplification. There were two means of using the filter. If one placed it close to the objective before focusing, the filter might be small, but must be very carefully made. If it was not placed before the objective beforehand, the focusing was not sharp. On the other hand, one might focus without a filter and use a large, thin film filter placed in the plate holder in contact with the plate.

The next step was to add the filter substance to the emulsion at the same time that it was sensitized for color, either by bathing the plate or by mixing with the emulsion before coating. It is apparent that to the different color sensitizers different suitable filter colors might be added.

To-day, under any circumstances, one is able with orthochromatic plates, according to the choice of lenses, sensitizers, and filter colors, to reproduce aerial perspective by photography in monochrome as well as the best etcher can, and approximately as well by three-color processes as a good painter.



PORTRAIT
ALEX. MÖHLEN, HANNOVER
German Professional Section, Dresden Exposition

Since ordinary plates are still much used instead of orthochromatic, principally because the ordinary plates last longer, it is desirable to find a means through which the lacking aerial perspective can be supplied. It is indeed not advisable to make attempts of this kind on the negative, which might thereby be totally destroyed. The best plan is to prepare an enlarged positive on matt bromide paper, and after studying the negative carefully with the lens, to draw in the shadows cautiously on the positive with black crayon and work them over with a stump, and likewise to bring out the mountain outlines more strongly against the sky in the same fashion. One may then add isolated deep shadows in the foreground and middle distance. Those who are able to work with crayon and stump can even work in clouds in the sky, which gives an especial charm to the whole.

The larger such an enlargement is and the more thoroughly it is worked up, the more perfect will be a negative prepared from it, which often may be exactly as good as one taken on an orthochromatic plate.

Especially for very long journeys, which sometimes last years without the possibility of getting a new supply, the most permanent plates are the best. In order to keep them free from halation, it is advisable to use plates, the back of which is ground and painted over with a black backing. Before developing, the layer can be wiped off with a moist cloth. — *Das Atelier des Photographen.*

A PRACTICAL HOME-MADE CAMERA FOR INDOOR USE

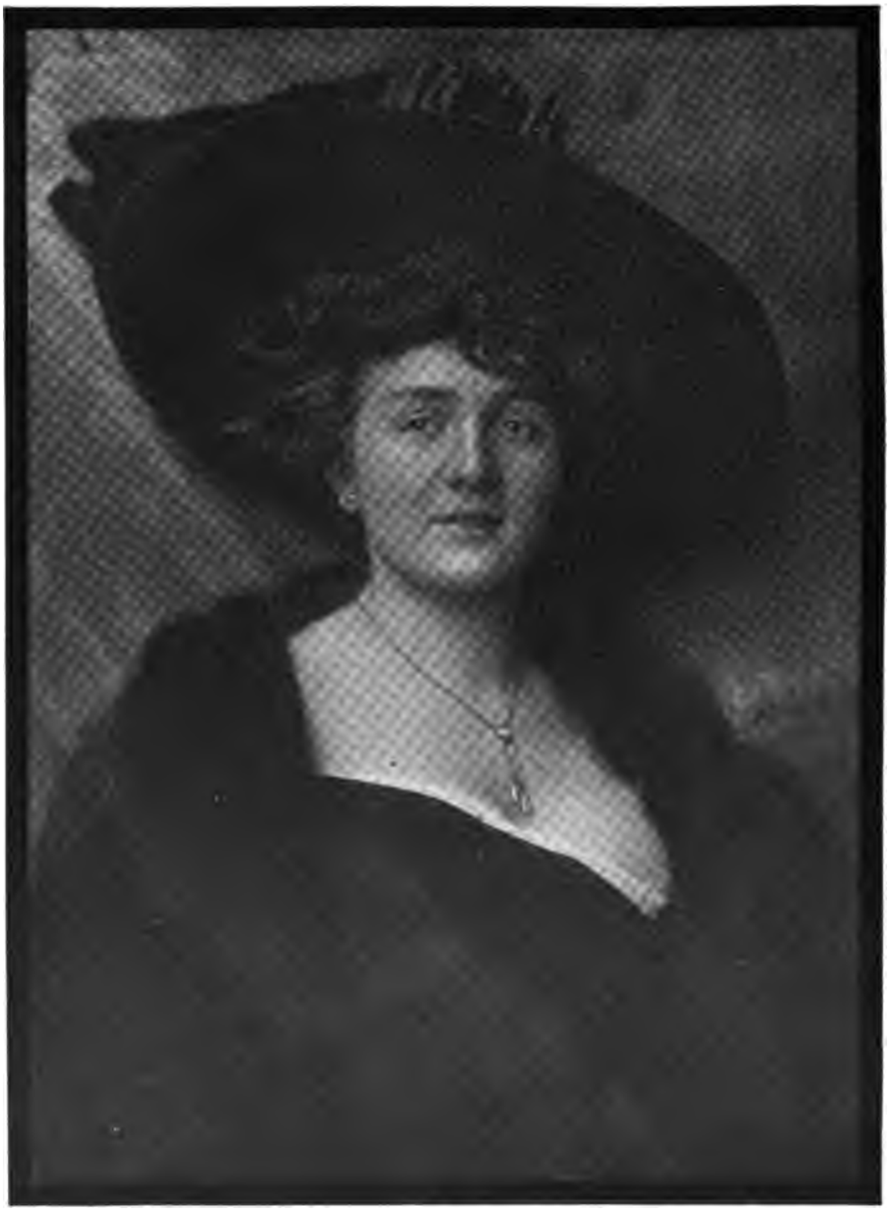
WILLIAM S. DAVIS

IN these days, when so many styles of cameras are on the market, amateurs are not so much given to making their own apparatus as they once were; nevertheless I fancy there are still some, who, either from necessity or choice, would rather make a thing than go without, so with this thought in mind I offer these directions for the construction of a simple but practical camera adapted to a variety of indoor work, such as enlarging, making large copies or portraits direct, and similar uses, which require a large camera with long bellows. As such a camera is expensive if purchased, a home-made instrument which can be constructed at a very small outlay means a considerable saving. I may add that I have taken care to design this camera in such a manner as to permit of its being made with the tools to be found in a simple outfit.

The first thing to consider is the size desired, which of course depends upon one's personal taste or requirements. 10 x 12 or 11 x 14 inches is a convenient size, although it is better to have the camera a size larger than is generally wanted than to make the mistake of having it too small, for inside kits can always be used in the plate holders when needed, while one cannot increase the size at a moment's notice.

Having decided upon the size, the next thing is to procure one or more plate holders. Second-hand or shop-worn holders can often be purchased cheap from some photo-supply houses, and being for indoor use, those which might not be quite safe in bright sunshine out of doors will answer the purpose as well as new ones. In any case I would hardly advise one to try to make their own, as plate holders are more difficult to make properly without special tools than any other part of a camera.

In starting work it will be best to begin with the bellows. This should be about two inches larger each way than the size plate the camera is designed for. To explain the construction clearly I have shown in Fig. 1 the pattern for an 11 x 14 inch oblong bellows of 32 inches extension, that being the size camera I will give measurements for. The material required for making is — some sheets of very thin card stock, such as two or three ply "Bristol board" or the light "straw



PORTRAIT
GEBRÜDER LÜTZEL, MÜNCHEN
German Professional Section, Dresden Exposition

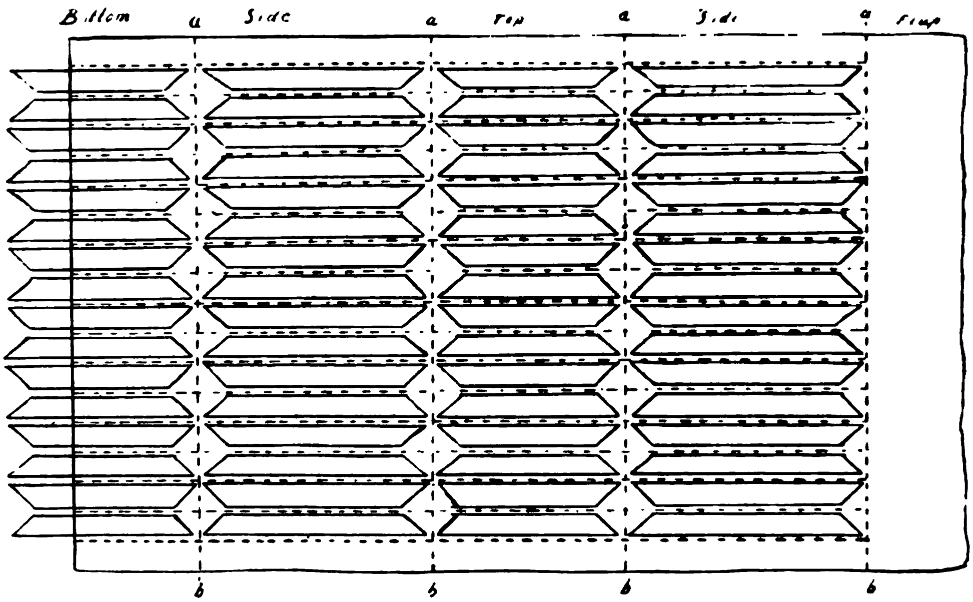


Fig 1

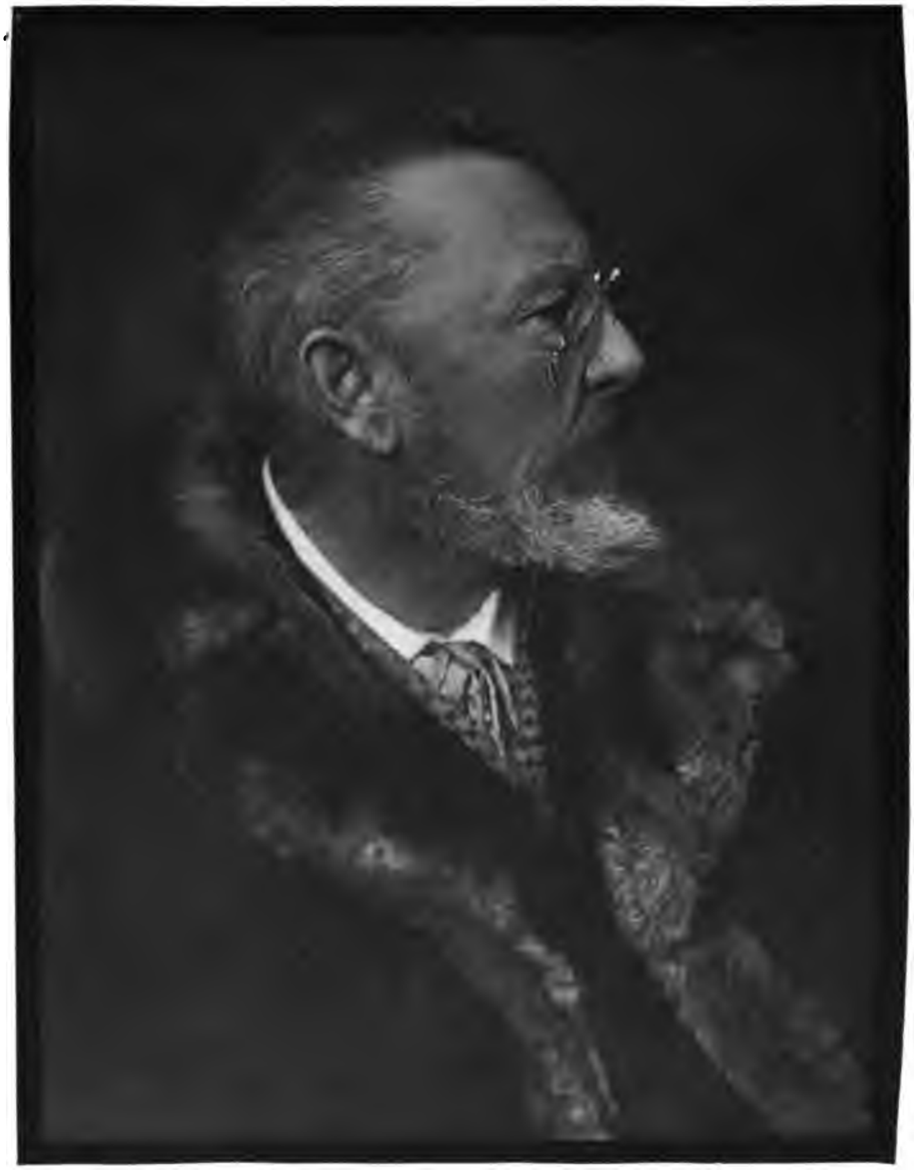
board," such as used for packing material, also about four yards of black "silesia," 36 inches wide, to be found at dry goods stores. Of course other material may be used for covering, such as rubber cloth or thin leather, but the silesia is cheaper and answers the purpose very well.

To make the bellows, stretch about two yards of the cloth on some flat surface and pin in place. Mark the lines a-b in white chalk, then the cross lines which indicate the folds, 2 inches apart, taking care to measure accurately. The cardboard is next cut in pieces of the shape shown in Fig. 1*A*, 1¾ inches wide and ¼ inch shorter than the measurement of bellows (which is 13 x 16 inches) to allow room for folding. The ends are cut off at an angle of a little more than 45°. These "forms" are pasted and laid down on the cloth, as shown in Fig. 1, and when all are in place a coat of paste is applied over all except the flap of cloth at one side, another piece of cloth is laid over and well rubbed down, and the whole placed under light pressure to dry, when the cloth flaps are opened and pasted, and the bellows joined by inserting the bottom "forms" between them in proper position. It will be noticed that the ends of the bottom forms are allowed to project beyond the edge of cloth, which is done to avoid having the seam when the parts are joined come at one corner, as the extra thickness would prevent compact folding. A flap of the cloth an inch or so wide is also left at each end of the bellows for convenience in mounting, as I will presently explain.

After the seam is dry, the next thing is to fold the bellows, which is not by any means so difficult as some people might think, as they are not folded like the tapering kind used on hand cameras, but the same as those which were once fitted to view cameras, as shown in Fig. 2. Start with the bottom folds, then the sides, and after they are folded into place at the bottom work them in towards the top, when the top folds can be creased and folded into place without any trouble.

When folded, a light frame, made of strips of wood about 1 inch wide x ⅜ or ½ inch thick, the size of bellows, is inserted at each end, and the flaps, previously mentioned, tacked to them evenly all round, as represented in Fig. 2, and the whole placed under pressure a while to help make the bellows fold more compactly.

Having settled with the bellows satisfactorily, we are ready to go ahead with the woodwork. The materials required will be some smooth lumber ⅜ inch and 1 inch thick, and a few pieces



PORTRAIT
F. VOLLENWEIDER, BERNE
Swiss Professional Section, Dresden Exposition

Fig. 1A

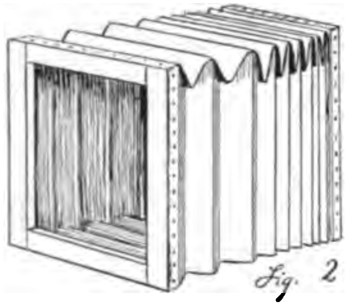


Fig. 2

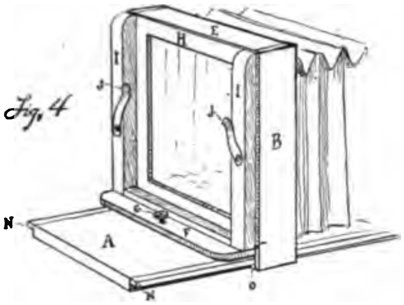


Fig. 4

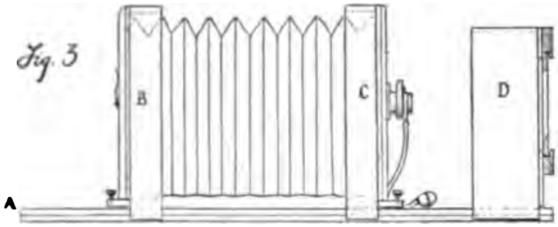


Fig. 3

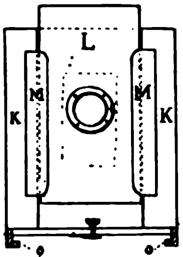


Fig. 5

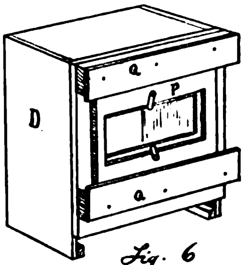


Fig. 6

of thin wood about ⅛ inch thick, such as cigar boxes are made of. While hard wood, such as cherry or black walnut, is of course preferable, if it can be obtained conveniently, white pine will answer every purpose and may be finished very neatly, as I have found by experience.

Two thumb-screws about 1½ inches long with either "wing" or "milled" heads, will be required for clamping the moving parts, also some spring brass about ½ inch wide.

Figure 3 shows the general construction of camera. The box D is not a part of the camera proper, but simply an attachment for holding negatives when making enlargements. Both the back and front boxes (B and C) are of the same size and are made to slide on bed A to allow of either front or back focusing. They are made of ⅜ inch material. The rear box is shown in detail in Fig. 4. To allow room for bellows the sides B should be 19 inches long x 3 inches wide, and the top E 14 x 3 inches, while the bottom, F, is 14 x 5 inches, to allow room for clamping screw G. This screw is fitted by boring a hole the size of screw through the bottom and then countersinking the nut fitted to screw on the under side. It is also well to fasten a small tongue of spring-brass where end of screw comes through, to prevent it marring the camera bed when pressure is applied to clamp the back in position. The back H, which may either be framed-out or made in one piece, with 11 x 14 opening, is then nailed or screwed (it is best to glue all parts as well) to the back of box, and the plate holder guides I I I fastened in place. These should be about the same thickness as the plate holder, and on the side guides are screwed two pieces of spring-brass J J, 2 or 3 inches long, which serve to keep the plate holder in place. The back H inside the guides should be covered with felt or some other soft cloth to avoid the possibility of light entering between back and holder.

The ground glass frame is not shown, as it is so simple, the only care necessary being to see that the ground glass registers in focus with the holder.

The front box C is made exactly the same as B so far as the sides, top, and bottom is concerned. Then the front of box is covered by a board or frame provided with an oblong vertical opening to allow for rise and fall of lens, as indicated by dotted lines in Fig. 5. On this are fastened guide strips K K, between which the lens-board L slides, the latter being kept in place by metal or thin wooden strips M M.

Having made the back and front, the next thing is the bed, which is only a board A, 13 inches

A QUESTION OF AGE *First Prize, Monthly Competition* J. HERBERT SAUNDERS, LEEDS, ENGLAND

wide, about 4 feet long and 1 inch thick. On each side are nailed runners N N (Fig. 4) ½ inch thick. The guides O (see Figs. 4 and 5) are now adjusted, when the boxes B and C should slide smoothly back and forth on the bed. The bellows are now extended, and attached to the front and back boxes by screwing the frames attached to bellows to them from the inside.

The woodwork is now ready for some kind of a finish. If hard wood has been used, raw linseed oil or prepared wax, such as used on furniture, rubbed in with a rag and then well polished off, is good. With white pine the best way is to first apply a water stain of the desired color, or black aniline dye, and when thoroughly dry, finish with oil or wax. All inside parts should be painted or stained a dull black, to prevent reflections.

While the camera as described is now complete for copying and similar work, the attachment for enlarging or lantern-slide making, illustrated in Fig. 6, will be found very convenient. The box D, which should be 5 or 6 inches deep, is made to slide on the camera bed, as will be seen by reference to Fig. 3, and simply forms a light shield for the negative. The negative holder P slides between guides Q Q in a similar manner to the lens board of camera, but being square can be reversed and the negative placed in an upright position when necessary, while any part of a negative can be centered by means of the vertical sliding lens board and horizontal sliding negative holder. In using this attachment in a brightly lighted room it is a good plan to throw the focusing cloth over the space between front of camera and negative box.

When not in use the camera may be packed in small compass by sliding the front and back sections off of the bed, and standing the latter on end in some out-of-the-way corner. This is thought a better way of packing than cutting the bed in sections to make it fold, because a solid bed makes a more rigid support.

MAKING PASSE-PARTOUTS

F. DUNDAS TODD

THERE will be nothing very original in this article. It will consist practically of the instructions given to a boy of fourteen who suddenly developed a desire to frame for his own room about a score of the best from a collection of many hundred picture post-cards that he had accumulated in the course of a few years. Most of the necessaries are to be found in the possession of every photographer, so my part of the work was to show how they could be utilized.

First as to the essentials required. These consist of sheets of glass at least as large as the print to be treated, a wheel glass cutter, passe-partout binding paper, cardboard for the back, and suitable hanging rings. A lot of useless 5 x 7 negatives provided the glass, the cardboard was got from old boxes of various kinds, the binding strips and hangers were bought from a supply house.

The first task was to clean the old film from the glass. The best time to get rid of the gelatine film is just after development, so at one time when I was using for divers purposes the glass of old negatives, whenever I found after fixing that one was of no use, it was set aside in water until its case could be attended to. It was then placed in a tray with a little water, and very hot water from a kettle poured over it, and in a few seconds every particle of the film was gone. A good swill under the hot tap followed, then the glass was placed on the rack to dry.

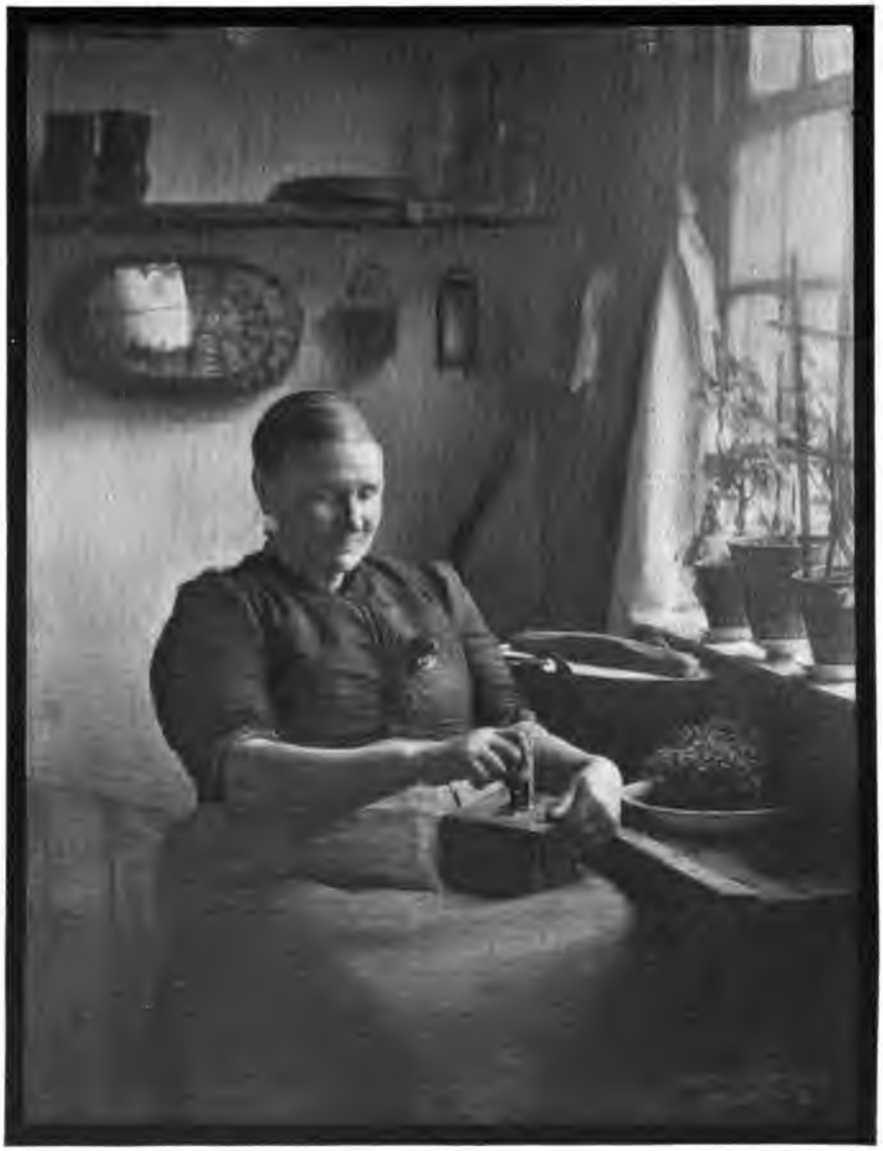
[If a spoiled negative when taken from the fixing bath is allowed to dry without washing, the hypo will separate the film from the glass, so that when wet again, it can be rubbed off whole without the least difficulty.—*Eds.*]

But a dry negative is different, for the developing agents seem to have a certain amount of tanning action on the gelatine film. For such make up a strong solution of washing soda in a scrubbing pail, and while it is as hot as the glass will stand, drop in the negatives one at a time so that they will stand on edge, and if possible leave a little space between each so that the solution may reach the film freely. An ordinary pail will hold several dozen. Let them stand at least twenty-four hours, when they will be ready for the next stage.

Provide yourself with an ordinary nail brush, lift one negative from the pail, turn on the hot water tap if convenient, if not use a large basin with hot water, and proceed to scrub off the film with the brush. Ordinarily a minute is sufficient, but if the film is reluctant to part from the glass, just return the negative to the soda solution and take the next one.

The next thing is to cut the glass to the necessary size. There are fashions in frames and mounting as in everything else, and in the twenty-three years I have been interested in photography I have seen many different styles. Hanging on the walls around me are several dozen photographs of many vintages (some of them have been twenty years in the frames), and it is interesting to compare the different fashions. It is not my intention to enter into a description of all of them, but I will simply say that they fall into two broad classes: those framed up close and those with a generous display of mount or mat. All in all, I prefer the former, for it is seemingly so hard to make a harmonious combination of print, mat, and frame, in fact practically every one on my walls shows some little discordant note that detracts. So to the one just starting out to passe-partout some prints I would suggest the advisability of leaving out mats and mount margins. A picture that suggests the solitary oyster in a bowl of soup at a church sociable is not an unmixed pleasure.

To cut glass quickly and accurately looks to most people quite a problem, but with a little instruction my boy prepared a couple of dozen lights in a few minutes, using the ordinary twenty-five-cent glass cutter one can buy in almost any general store. In cutting glass the most important



GRINDING COFFEE BEANS
H. BERSSENBRUGGE, ROTTERDAM
Second Prize, Monthly Competition

thing is that the sheet lie on a perfectly flat surface so that neither it nor the guide bar can move while the cutter is drawn over it.

It takes but a little while to make a suitable jig to attain both ends, and it is assuredly worth while. From any old packing box select an end that is certainly flat (the one I made is about 8 x 10). On the surface at one end nail a strip of inch wood, against which both the sheet of glass and the guide are to be butted. Place a print on the wood in position against the strip, then set the wheel of the cutter in contact with the edge of the print, and you can now measure the distance from the strip to the block of the cutter. Make your guide this width from any piece of wood that is at least half an inch thick. Now turn the print with the narrow edge next the strip, and make another piece of wood as a guide for this size. In actual practice I find that I can pick up strips of wood of various widths that by combination give me any size I want.

To cut the glass, butt the long side against the strip, place guide on top and hold it down firmly with left hand, then starting at far edge of sheet with wheel of cutter, which should be held almost perpendicular, draw it toward you, pressing only enough to scratch the surface of the glass. Do not try to cut deeply, but on the other hand see that the scratch is complete from edge to edge of sheet. Now lift the glass from the jig and place a thumb on each side of the scratch, projecting in about an inch and a half. The other fingers are bent in so as to make a closed fist, but under the sheet, the forefingers touching each other. Hold firmly, then by a slight turn of both wrists, as if you were trying to separate the thumbs, snap the glass along the line. If the scratch be perfect, the break will be just as good. Here is a little pointer worth knowing about handling a very large sheet — the last time I used the trick was with a 40-inch sheet of thick glass for a bookcase. After the scratch is made, take a very small scrap of paper and roll it up into a hard ball, not so large as a pea. Place this under the scratch at one end about an inch from the edge, then press the glass on each side of it. We get all the leverage necessary from this pellet, but have no risk of damage from a drop of the sheet.

The passe-partout back must be exactly the same size as the glass if a neat job is to be made. Before it is placed in position the supporting rings must be fastened to it, as the catches of these are fastened inside. One ring is enough for post-card size, but large sizes ought to have two. The rings are usually fastened about a couple of inches from the top margin, by cutting a slit across the cardboard, through which the doubled tin strip is pushed, the ends being bent in opposite directions.

To make a neat job when pasting on the binding strips a guide is essential. The one in our house is very much like the jig used for cutting glass, the principal difference being in the cross piece. As before, the principal part of the device is the end of a packing box about 8 x 10 inches in dimensions. Across one end of it, not on the surface but on the edge, is nailed a strip of wood which projects above the face very slightly, a trifle less than the thickness of the glass. In front of this guide strip is drawn a pencil line one quarter of an inch away, this being the guide for the binding strip.

In the practical work of binding, the strips are first attached to the glass, then the print and board are placed in position and fastened. In detail the procedure is as follows: The clean sheet of glass is polished carefully on one side, which is placed downward on the board with a long side against the guide strip. Then take a piece of binding paper of the same length as this side, moisten the gum with a wet sponge and attach it to the glass, taking care that its forward edge is just above the pencil line. Since the guide stick is a trifle lower than the glass there is very little tendency for the binding strip to stick to it. Turn the opposite edge round and repeat. The ends are then dealt with in the same way. These strips will at the corners overlap the side pieces and so one must choose between a square overlap and an imitation mitre. Both are popular, but the second way looks neater. If it is wanted, it is easily got by covering the corners with little scraps of paper

THE TUG-OF-WAR T. W. KILMER, NEW YORK
Honorable Mention, Monthly Competition

while the end pieces are being put on, then cutting off the bit of the strip not wanted with the delicate drawing cut of a sharp knife. When the corner bit comes away, remove the protecting scrap of paper, and rub the strip down firmly.

Turn the glass over, run over its face with a dry cloth to remove any particles of dust, then place the print on it face down, and follow with the pasteboard back, watching carefully that the end with the rings is turned the proper way, for only an impressionist effort may look well upside down. Bring the combination up against the guide strip, long side as before, moisten the gum, and bring the binding paper in contact with the pasteboard. Do the same with the other long side, then the ends. The latter may be mitred, as in the front, but since the work will not be seen, a snip with a pair of scissors before moistening the paper will do well enough.

PRESS PHOTOGRAPHY FOR THE AMATEUR

A. M. ST. CYR

COMBINED with the idea that photographing for the press is the highest branch of the art, is the erroneous notion that none but the most costly cameras can be used for press work.

Except in size, there is no requirement for a camera for such work different from any other. At least a 5 x 7 size should be used, as the photos are always "thrown down" (made smaller) in the engraving room and often distorted for "telling" effect. With your first thrill of triumph, the germs of the fever of success at seeing your work in some publication, will come the faintest chill of disappointment that the photos are not full size. It is all there, but the 6½ x 8½ you worked out so faithfully is down to a 4 x 5. Your consolation must be that reduction in size has also worked a reduction in defects.

My first accepted illustrations were only 3½ x 3½, but I have had so many rejected on account of size that I do not advise anything under 5 x 7.

A very high authority on the subject advises but one brand of plates, and that a fast one. My experience has neither proved nor disproved that advice definitely; I have sometimes been where a plate was needed of a speed too fast for safety in ordinary "view" work. A fast plate will help out a slow lens, and as many of my best illustrations have been made with a 5 x 7, costing $7.50, I have found two grades of plates a necessity.

The much-discussed ray filter is a good addition to an outfit. While it will not do all that many claim for it, in many cases it will be found a great help. When you decide to use it, focus through it. If it gives the clouds distinctly and the foreground is clear and sharp in detail, make the exposure, allowing the extra time, and you will have the "cloud effects" in the print.

The question of what to select as a subject is as wide and indeterminate as the universe. That I have, since the first article appeared, "viewed for publication" a range of subjects from a swill barrel at a farmer's back kitchen door to a great battle-field, shows the infinite variety to be covered. Often the text of a "story" allows great latitude in composition, and in such cases the old rule should govern.

We instinctively see from left to right; we read our lines that way and our illustrations should unfold in the same direction. A view of a plain should have the point of interest in the lower left portion of the picture, with just sufficient margin to give a setting; the sky-line should be low, a very small stop used, and everything in focus.

Straight lines across a landscape, such as roads, should cross the line of sight at an angle of 30°. In views of a broken country or mountain streams the sky-line should be high up on the plate; a stream should break the sky-line in the upper right-hand portion, flow from right to left, and leave the view in the lower left hand. We "read" a mountain watercourse up-stream, and this composition gives the natural left to right rendering.

In a river scene the unbroken water portion should never occupy more than one half the width of the view.

Everything that appears in all such illustrations should be sharp in outline, as the "interest" is in everything from foreground to sky-line, and indefiniteness mars the effect. Where the interest centers in some one point occupying relatively a small portion of the plate, the background may be ignored, or at least slighted.

A gravestone, a rosebush, a group of children at play, absorb the attention: we know that they are not located in mid air, and care nothing for surroundings.

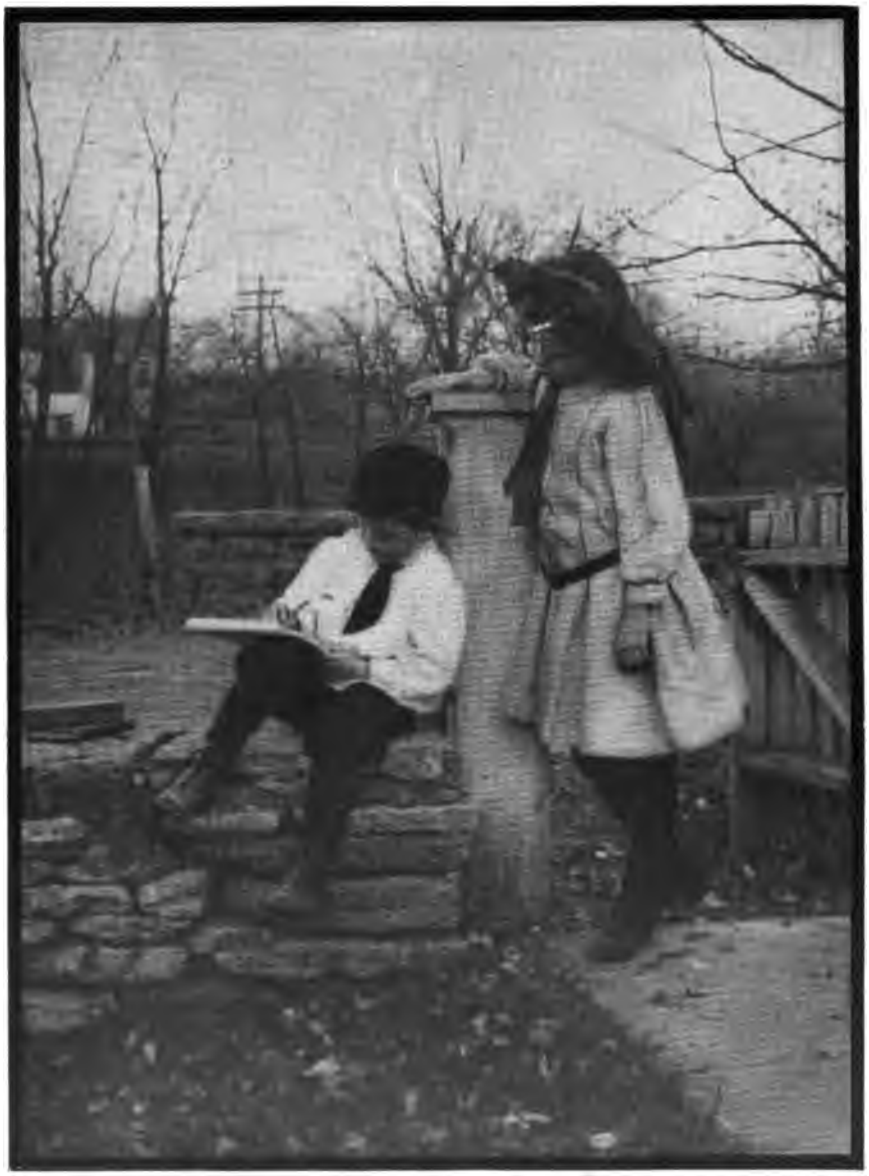
A great question with beginners will be the insistent one of "How shall I begin to get into print?"

Every village, every neighborhood has an incipient "story" for which some respectable journal is waiting, and contrary to general belief, the editor is as anxious for your article as you are to furnish it. That little creek or the river on whose banks you have lived holds a story of the long ago; the oldest house in the village or the site of the first settlement in your county would yield another, while the venerable graveyard "headstones, all moss grown" is full of secrets for several more.

When the material for a story is found, write directly to the editor with whom you wish to place it. Tell him, in the fewest possible words, what you have, and ask if he can use it. Beyond the ability to ask for what you want and await an answer after you have asked, do not try to give an editor an idea of your literary ability. This is contrary to the advice of literary critics and monitors, but it has been successful in at least one case.

There is but one case that is positively known where an unknown writer has been assured that his article would be accepted; the most favorable reply is usually, "We will consider such an article as you mention."

But this means that the subject-matter is considered good, and if well written will be published and paid for. A photo for each five hundred words and one for the title is about the average for an article.



AFTER SCHOOL
GRACE E. MOUNTS, MORROW
Honorable Mention, Monthly Competition

EDITORIAL COMMENT.

ADVERTISING

NATURALLY a photographic magazine attracts only the advertising of firms and persons dealing in photographic articles, and a survey of the advertising pages of the photographic press of this country will show that only in rare instances does the purveyor of any other kind of goods enter these papers. Therefore a disparagement of advertising in photographic magazines is an attack on the reputation of the photographic manufacturers, who are practically the only advertisers. A writer in a contemporary recently made a tirade against "these days of fraudulent advertisements." He was wofully mistaken. These are not the days of fraudulent advertisements. The photographic field is particularly free from frauds. Our publishers for many years have investigated every complaint made by a reader that he had failed to receive full satisfaction from any advertiser, and we have invariably secured satisfaction. Within our memory only two advertisers have had the unenviable distinction of any complaint not easily explained away as an ordinary accident of business. One of these was a maker of lenses whose advertising is no longer carried by any photographic magazine. His lenses seem to have been of variable quality. Many purchasers were entirely satisfied; others were not, possibly expecting too much for the low price they paid. The advertiser, however, made exaggerated claims for his goods, and was very slow in delivery in many cases, but we are not aware that any case of dishonesty was ever proved against him, and as far as we know he is still doing business, which argues that he has some satisfied customers. The other case was an importer of photographic goods who caused many complaints by long delays. When he could be reached personally he always promptly satisfied claims. Eventually the death of one of his assistants revealed the fact that a mania for concealing letters had existed, and large quantities of letters, mostly unopened, were found concealed on the premises. After they had been answered, all complaints ceased. These two cases form no basis for an accusation of widespread fraudulent advertising. As a matter of fact, the postal authorities are so vigilant that no fraud through the mails goes long unpunished.

A recent number of *Printers' Ink* answers this writer so well that we quote a few paragraphs from a rather long article which is well worth reading.

"The real harm is done when such articles give the public a wrong impression of advertising and undo all the good that has been done by publishers, advertising agents, and advertisers, who have placed the practice of advertising upon a very high plane."

"Advertising as it is done to-day by the majority of advertisers and advertising agents is as honest and sincere as the work of architects, lawyers, civil and electrical engineers and other professional men."

PLAYING IN THE BROOK DR. FRED S. PIPER, LEXINGTON

Third Prize, Monthly Competition

"A great deal of the large amount of advertising that is now being done is successful. It is successful because the people who buy advertised goods are satisfied. There are very few commercial successes that are built up on a single sale. Even such articles as automobiles, piano players, typewriters, and other things, which are supposed to last a long time, are constantly being renewed. Besides, each satisfied purchaser radiates his satisfaction to influence other sales. If he were dissatisfied, he would radiate his dissatisfaction in the same way, and check all the good the advertising would do. Because this advertising is successful, it is honest and sincere, makes good its promises, and keeps faith with the public."

"Another great force which is rapidly exterminating dishonest and disreputable advertising is the attitude of publishers themselves. Nearly all prominent magazines and a number of leading newspapers discriminate against advertising that is of a fraudulent or disreputable nature."

"Therefore, he (the writer in question) is guilty of what when I studied rhetoric was called 'synecdoche,' which is taking a part of the whole, and in this case a very small and misleading part, for a very large whole."

THE AWARDS AT DRESDEN

Certain of the American professional photographers who sent pictures to Dresden for exhibition were much surprised when they received notification of the award of prizes. Some of them had been assured that no awards would be made, and state that they entered pictures on that assurance. Mr. MacDonald, who collected the pictures, has written letters which we have seen, stating that he stipulated that no awards should be made.

The management of the Exposition has not been willing to give us official information on this point, but we have a mass of correspondence with members of the jury, of which the letter subjoined is typical. It is from Professor Emmerich, who had full charge of the group Professional Photography, and was also a member of the jury. We give the original and a translation in parallel columns: —

MÜNCHEN, 27 Oktober, 1909.

HERRN FRANK ROY FRAPRIE,
Boston, Mass.,
6 Beacon St.

Sehr geehrter Herr!

Ihre Fragen betreff der Jury der amerikanischen Gruppe beantworten sich sehr einfach:

Die Amerikaner haben sich durch Unterschrift der Anmeldeformulare den Bedingungen der Ausstellung unterworfen; diese kannte man allgemein und diese sahen vor, dass die Gruppe Berufsphotographie in bestimmter Weise jurirt werde.

Davon konnte keine Ausnahme gemacht werden. Wo soll es hinkommen, wenn man bei einem solch grossen Unternehmen anfängt, diese und jene Sonderwünsche zu erfüllen.

Das ist ganz undenkbar.

Herr Dührkoop beantragte in der Jurysitzung den Amerikanern je ein Beteiligungsdiplom zu geben und sie nicht zu jurieren.

Das würde ebenfalls wieder den Preisgerichtsbestimmungen entgegengewesen sein, die strikte von Allen beobeachtet werden mussten.

Das Preisgericht beschloss, auf keinen Fall eine einzelne Ausnahme zu machen und die 35 amerikanischen Aussteller zu behandeln wie alle 1600 Aussteller.

Amerika hat dann auf die sehr energische Vertretung Dührkoop eine ganze Anzahl und sehr hohe Auszeichnungen erhalten.

Man solle meines Erachtens dort sehr zufrieden sein.

Hochachtungsvoll ergebener,
Prof. EMMERICH, Direktor.

MUNICH, October 27, 1909.

FRANK ROY FRAPRIE, etc.

Your questions regarding the jury of the American group may be answered very simply:

The Americans, by signing the entry blanks, subjected themselves to the conditions of the Exposition; these were generally known, and provided that the group Professional Photography should be judged in a definite manner.

From this no exception could be made. Where shall it end in such a great undertaking, when one begins to gratify this and that special desire?

It is quite inconceivable.

Mr. Dührkoop made a motion in the jury session to give each of the Americans a certificate of participation and not to judge them.

This would also have been contrary to the constitution of the prize tribunal, which had to be strictly followed by all.

The prize tribunal determined not to make a single exception in any case and to treat the 35 American exhibitors like the whole 1600.

America, then, through the very energetic pleading of Dührkoop, obtained a large number and very high awards.

In my opinion they should be very well satisfied over there.

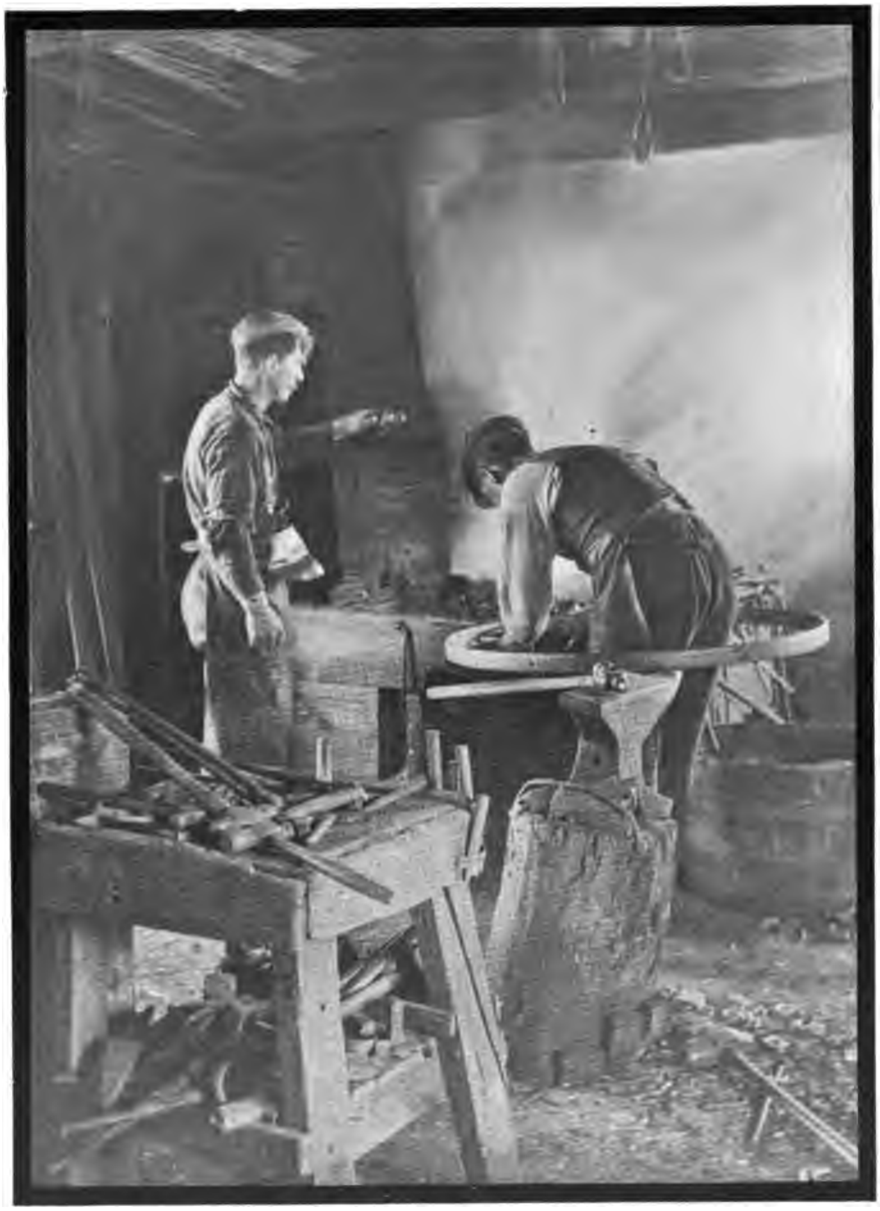
Respectfully, etc.

We are fully of Professor Emmerich's opinion. The programs were printed in English and plenty of them were sent to this country for distribution. They explicitly stated that awards would be given to professional photographers. The entry blanks bound the exhibitors to accept the conditions of the program. The exhibitors who signed a document without knowing what they were agreeing to must take the blame to themselves, or lay it to Mr. MacDonald if he gave them to believe that their entries would not be in competition. In no case can blame lie on the members of the jury, who treated all entries as provided by the rules. They have had plenty of criticism in Europe for giving so many awards to America. To have America turn and rend them because the awards were made fills their cup with bitterness.

OUR COMPETITION

OUR foreign readers seem to be formidable competitors in the monthly contests. For the second time within three months, two prizes go outside the United States, the first prize going to England and the second to Holland. In addition one honorable mention goes to Germany and one to Canada. The awards follow: —

First prize, "A Question of Age," J. Herbert Saunders; second prize, "Grinding Coffee Beans," H. Berssenbrugge; third prize, "Playing in the Brook," Fred S. Piper, M. D. Honorable Mention: "Marbles," John J. Reilly; "The Tug-of-War," T. W. Kilmer; "After School," Grace E. Mounts;



MEASURING THE TIRE
LEWIS E. SMITH, HALIFAX
Honorable Mention, Monthly Competition

"Measuring the Tire," Lewis E. Smith; "Monday Morning in the Country," F. F. Sornberger; "Lost in Thought," Miss Grete Back; "Packin'," U. L. Upson, Jr.; "The Letter," James Thomson; "Husking Corn," D. C. Fitts; "Playing Mother," Harry D. Williar; "Gänselisel," Richard Pertuch; "The Good Sister," R. I. Barber; "The Busy Housewife," E. J. Brooking; "Curiosity," I. Bartholomew; "Tending Geese," O. Zernickow.

OUR DECEMBER INSERT

We feel compelled to apologize to some of our readers for the insert of eight pages in the Christmas number. The major portion of the edition contained satisfactory inserts, but a few sheets toward the end of the run were unsatisfactory, owing to mechanical difficulties with the press and plates. We unfortunately did not discover this until the unsatisfactory copies were in the mail. It is not surprising, though none the less disappointing, that difficulties should occur with a comparatively untried process. In March we hope to use this process again, with much better results.

OUR NEW DRESS

We present you this month with a magazine new from cover to cover. Every line of type, cut, and decoration is brand-new, and the magazine contains far more matter than ever before. If you like the new form and make-up, show the magazine to your photographic and artistic friends and ask them to subscribe.

MARBLES JOHN J. REILLY, HARRISONBURG

Honorable Mention, Monthly Competition

OUR PORTFOLIO.

Prints for criticism under this heading should be sent to Frank R. Fraprie, 6 Beacon Street, Boston, Mass. Only one by each reader can be criticized each month. Prints are not returned after criticism. An asterisk indicates that the print is reproduced.

307. **CHAS. JUNG.**—"Grazing." In your enlargement of sheep you have done what few amateurs seem willing to do when they get the opportunity of photographing sheep. Instead of photographing a large number of individuals scattered over a grassy lawn, you have included but two in the picture, and they are taken in a characteristic and interesting attitude. They do not, however, group themselves especially well, and it is unfortunate that they are separated by the strongest vertical line in the picture, that made by the trees against the white sky. Consequently we feel a division straight through the middle of the picture which weakens it very much. The sky is absolutely white, and all detail is lost in the black sheep. In addition to this the plate is fogged badly in the lower right-hand corner, apparently by light admitted through a leak in the plate holder or a corner of the camera bellows.

308. **FORMAN HANNA.**—"The Canyon Mouth." This print shows a satisfactory landscape arrangement, but suffers from what one is very likely to get in a mountainous region, and especially in a sub-tropical one,—under-exposure. In such regions one should never forget the old injunction, expose for the shadows and let the high lights take care of themselves. Light in low latitudes is not really so much stronger than that in high latitudes, and the exposure should not be much less. If the high lights are stronger, the

321. THE SISTERS H. B. ROOD

327. MOTHER AND CHILD J. H. BERKEMANN

shadows are denser and need full exposure. Dilute development will take care of the contrast and give a harmonious result.

309. W. F. Exner.—"The Fountain." This is a subject which always is fascinating and which apparently, to be successful, needs a short exposure. At the same time you have made your exposure far too short, with the result of getting heavy black shadows and chalky high lights. More time for exposure, more time for development, more water in the developer would have helped you. The arrangement is not unpleasing, and you might have had a good record under the conditions mentioned.

310. Harry G. Burns.— "When Grandpa Reads." It is always advisable, when sending a large print by mail, to protect it with a couple of layers of cardboard or other packing material. In default of such precautions your print arrived in a badly torn and jammed condition, so that it was impossible to reproduce it. The picture is interesting and undoubtedly would prove very pleasing to the average person. The probabilities are that it would make a successful post-card subject, and we think you might easily market it for this purpose. We would advise you, however, to trim off a couple of inches from the top of the picture so as to bring the little boy's head within a half-inch of the upper margin. It is possible you might also cut off a little from the left-hand side; otherwise this is a very fair specimen of genre work.

311. Fred. E. Crum. — "A Study." You have here a very interesting model, and you have made a very attractive portrait, the lighting and modeling being interesting. We would prefer, however, to see the hair and dress brought out a little more distinctly against the background, as they fade away rather too much into the encircling gloom. If this were done, we should have nothing but praise for the print. As for the scratches you mention, about all you can do with them is to spot them out on the print.

312. Freed A. Miller.—The portrait you sent us this month is a good example of home portraiture; and if it had been taken against a satisfactory background, it might have been very pleasing. Evidently the plate has defects so that you have felt obliged to make your oval too close to the head at the top. The figure looks cramped in the space which you have allotted to it. If you can tone down the light on the lower left side of the face a trifle and give the head more room, this will be a satisfactory likeness.

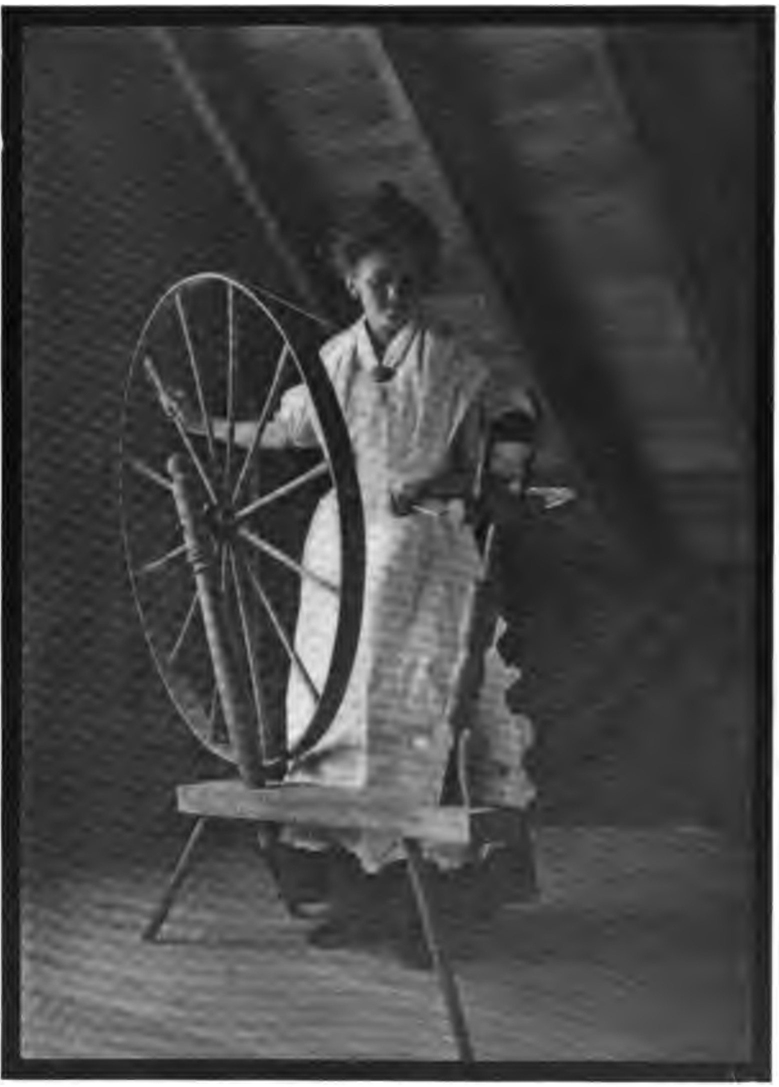
313. Burdette Harrison. — "September Hills." This is a very good example of a topographical landscape picture. It seems to be slightly under-exposed in the immediate foreground, — a point of apparently little moment, as a quarter of an inch may be trimmed from

320. LANDSCAPE W. G. SCOVELL

the bottom if necessary. The exposure for the rest of the landscape is satisfactory, and the planes are well separated. As a record of an interesting countryside, this is good.

314. Leopold Radke. — Your first attempt at portraiture with a view camera could easily be improved, and yet might be much worse. The picture shows some lack of detail in the whites, and it would have been well to make a somewhat softer negative. The principal difficulty is the position of the subject. The head is projected too far forward so that the effect is top-heavy. If the young man had been leaning somewhat back-

318. THE LAKE [illegible] B. MIKESELL



324. THE COLONIAL GIRL
CARL KREBS

ward, the effect would have been to bring the chest farther forward and give more base to the composition. We do not think you chose the best position of the head for this subject, as this is neither profile nor three-quarter view, and the nose projects unpleasantly from the vertical line of the cheek. Either a plain profile or a three-quarter view, bringing the nose against the cheek, and not projecting beyond the line of the face, should have been chosen.

315. C. W. C. — Your portrait is too light a print. There is too much light on the face, so that this appears hard and chalky. Although you call this a shadow lighting, the deepest shadow on the face is as bright almost as the high lights should be. Probably a little darker print would give you a better result. We do not see any reason for using an oval trimming here; but if you must use an oval, cut it accurately.

316. Emil Pedt. — Your family group shows very strong evidence of under-exposure and forced development. All the white clothes are represented by pure white paper, absolutely lacking in detail, and the shadows are dead black. This is due to over-development, which also leads to the halation in the upper left-hand corner.

317. C. B. Carling. — "Llana Cascade." Considering the inevitable difficulties of illumination present in such a situation, you have made a fairly good photograph of this waterfall. The exposure doubtless has been insufficient for the rocks, so that they appear darker than they should, but the under-exposure is not what could be called serious, and at the same time you have fair definition in the water. On the whole you have made a compromise which is as good as reasonably could be expected. If you will look at the rules you will see that we can criticize but one print per month.

*318. W. W. Mikesell. — The unnamed print of yours is one of the best pictures that has come to the "Portfolio" in a long time. Your little frontier village with its background of tall conifers reflected in the glittering ice, its distant mountain range, and beautiful clouds above is most excellently photographed. While there is nothing in the print which could be called composition, it is a most attractive picture in every respect.

319. Roy J. Sawyer. — "Midsummer Afternoon." Your photograph shows distinct evidence of appreciation of picturesqueness in landscape, but the picture lacks aerial perspective, so that the nearest trees seem to be practically in the same plane as those beyond them. This is probably due to over-correction, — that is, the screen was too deep for the orthochromatic plate. Otherwise the picture is very interesting. We thank you for your kind words in regard to the magazine. In spite of the entirely unwarranted statements made by *Camera Craft*, American Photography is by no means on the decline, but its support from its readers is increasing month by month.

*320. W. G. Scovell. — Your landscape is a very interesting piece of work and shows perfect technical work in every respect. The arrangement is fairly pleasing, but you have too much material at this spot to make a wholly satisfactory picture. The trees in the foreground lose their identity in the thick masses of variety behind them, and there is no particular object in the picture to rivet the attention.

*321. H. B. Rood. — "The Sisters." This group of three girls lying on the grass is a very well-posed outdoor portrait, and it has the merit of having a most attractive natural background. It should be extremely pleasing to both the subjects and yourself.

322. Bascom P. Goode. — "Cloud Study." This is a fairly good example of strong clouds photographed on an ordinary plate. Of course, you lose under these circumstances some of the details which could be had by the use of an isochromatic plate and ray screen. Such heavy clouds, however, are not of much use for printing into another landscape, as they are too heavy, and they are too confused to be good examples of cloud forms.

323. Wm. L. Crawford. — "The Zion Sawmill." Your stereoscopic print is a fairly satisfactory example of the commercial variety of this interesting form of photography. We would prefer, however, a picture made with somewhat more exposure. This would have brought out more detail in the snow, and also have left the trees somewhat less black. At the same time the picture gives a fairly good impression of winter in the stereoscope.

*324. Carl Krebs. — "The Colonial Girl." We have nothing but praise for this excellent genre study, which though taken under difficult circumstances, — that is, in a loft, apparently lighted by but a small window, — is fully exposed. The posing is excellent, and all the details are in keeping with the title.

325. Edward E. Palmer. — "Evening." Your print carries out the title by the gloom and shadow in which a large proportion of the picture is enveloped, but it seems to us that the amount of light coming from the sky and reflected in the water is somewhat too much for the blackness of the rest of the picture. Either you should tone these lights down or you should make them more concentrated, to give the suggestion of moonlight. The composition is otherwise satisfactory.

326. H. Kendel. — "Grandpa's Pet." This has the faults of a great majority of the home portraits which come to us, chalky high lights and dense black shadows, due to extreme under-exposure. The light indoors is deceptive, and the amateur portraitist usually assumes it to be much stronger than it really is. Had this been properly exposed, it would have been an attractive picture.

*327. J. H. Berkemann. — "Mother and Child." This is an excellent picture; and had it been properly classed as a genre subject would undoubtedly have received honorable mention in our competition. A genre, however, is a picture which tells a story, and this can be regarded only as a portrait group. As such it is well arranged, properly exposed, and could not be improved in any respect.

328. L. TORRIELO. — If you will compare this picture of yours of a blacksmith with the similar subject which won honorable mention in this month's competition, it should be evident to you where your picture falls behind the other. Undoubtedly a smithy is a place of strong contrasts of light and shadow; you have not reproduced these contrasts, but have exaggerated them. In other words, your exposure was too short, your development carried too far, and you have a negative with clogged high lights and clear glass shadows. Had you produced a negative with a much shorter range, this picture would have been interesting, and probably worthy of an award, as the composition is good, and you evidently know how to make a clean negative and print.

329. ANNA BECKSTROM. — "The Lure of the Book." Composition and posing here are very good, but your exposure is totally inadequate for the shadows, and in consequence the whole right-hand side of the picture is a heavy black mass, which throws the whole print out of balance. This is too bad, as the lighting in the figure is pleasing, and there is material here for a very interesting picture.

330. U. L. UPSON, Jr. — "Packing." You have material here for a good genre picture, but at the present time your figures are lost in the wilderness of empty space which surrounds them. You can with profit trim off an inch on each of three sides, excluding the bottom; and when this is done, you will have a picture which will hold together much better than the present one. Even then, however, the background will be pretty black for the figures.

331. A. D. JOY. — "Baby." Baby is very much interested in his toes and does not know that he is being photographed, which is as it should be. He seems to have had proper exposure, — which is rather unusual in the baby photographs which come to us. We would suggest that you trim off a half inch from the bottom of the print, and some from the back and top, in order to concentrate the interest. When this is done, we think you will find the picture holds together very much better.

332. CLEMENT W. LOW. — The rules prescribe that but one print may be sent at a time for criticism, therefore we take the one which you have numbered one, "Dreaming," and may possibly be able to return to the others at a later date. This is a very interesting fireside picture, and you handled a difficult subject and lighting very well. The artifice of placing the girl before the illumination in the grate is very cleverly carried out, and you have placed the model in an attractive pose. You have, however, here a very strong light on the side of the girl's face away from the fire, from a source which is not evident, and the reflections of your flash on the woodwork and tiles of the mantel are too evident. The picture would be improved by trimming off a half inch or so from the top, thereby removing the row of unnecessary ornaments on the mantel.

333. THOMAS BRADT. — We must call to your attention also the fact that but one print is criticized at a time. We have selected "Canadian Reflections" as the one which perhaps needs criticism most, and at the same time shows most possibilities. You have here committed the very ordinary fault of under-exposure and over-development, evidenced by the blocked-up shadows and the pure white sky. We think you will find at this spot material for a picture, but you will not get it by taking in the whole width of the stream with the banks converging to the middle of the picture. You must use less material and select it with care to make a different form of composition. If you will cut this particular print in two, exactly in the middle, you will find that either half alone makes a better picture than the whole.

334. ALAN B. MURRAY. -- "Mountain Road." Your print is far too dark and gloomy, for which overexposure seems to be responsible. The arrangement is passable, but a road is such a difficult thing to take and so uninteresting unless extremely well taken, that we often wonder why so many amateurs take roads. Probably it is because a road is an easier place to walk than rough hillsides or pastures, but the hillsides and pastures are where the real pictures are made.

335. S. A. PURKINSON.— "Snowballing, May 6, 1909." Apparently snow in May is something which is regarded as a rarity in your region and hence worthy of photographic perpetuation as a memento of an event. This may be of interest, therefore, but as a photographic picture we cannot commend it. Your exposure was incorrect and your print is far too dark, even the snow being dark. The figures are not interestingly placed, and the horizon line runs uphill.

336. FRANCES HARBER.— "The Cascades." This is a good record print of the buildings of some exposition, and as such of interest to many people. As you have succeeded in your object in making the record, we have nothing but commendation for the print, but we cannot concede to it any particular artistic value.

337. R. I. BARBER.— "September." This picture is enlarged too much to be wholly successful. Even when seen at a distance of twenty feet, details in the foreground are too obtrusive. You have rather too much strong foliage in the foreground and the white grass stems, contrasting with the black shadows, give an unpleasantly spotty effect. An enlargement about half this size, kept as soft as possible, would be more satisfactory.

SOCIETY NEWS.

The Postal Photographic Club, Monthly Bulletin. — The Album for December, 1909, was issued December 1, 1909. It contains thirty-three prints.

According to latest advices the Albums now *en route* were located as follows: Album for July, 1909, at Philadelphia; Album for October at Plymouth, N. H.; Album for November at Ithaca, N. Y.

The annual club election, held in November, resulted in the reelection of the present officers to serve during the year 1910, viz.: president, Mr. Charles E. Fairman; secretary and treasurer, Mr. Gustavus A. Brandt.

The club is now full and has three names on the waiting list.

Awards of certificates for prize-winning prints are announced, viz.: —

Mr. William H. Zerbe, of Richmond Hill, N. Y., for print No. 29: "No Wind, No Tide." Album for January, 1909. First Artistic Merit.

Mr. Gurdon R. Fisher, of Newton Highlands, Mass., for print No. 17: "Crawford Notch Road." Album for January, 1909. First Technical Merit.

Mrs. A. Leonora Kellogg, of Manchester, N. H., for print No. 11: "Resting." Album for February, 1909. First Artistic Merit.

Mr. C. F. Clarke, of Springfield, Mass., for print No. 24: "Miss Arrogance." Album for March, 1909. First Artistic Merit.

Members who are in arrears for prints are requested to replenish their supply as speedily as practicable. Effort is being made to have the Album for January, 1910, an unusually fine and attractive one. Members will confer a favor upon the secretary by sending their prints mounted whenever convenient to do so, but please don't let the lack of mounts deter any one from contributing prints. And please don't forget that commencing with the January, 1910, Album the standard size of mounts will hereafter be 11 x 14 inches.

G. A. Brandt, *Secretary.*

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Toronto Camera Club. — On the evening of Monday, November 1, at the open night meeting, the Interchange Slide sets of the New York and Orange Camera Clubs were exhibited, and appreciated.

The annual meeting of the club was held on November 8 and the twenty-first annual statement of the club was presented, election of officers and committees took place. The statement signed by the president, Alfred Robinson, showed a credit balance of $349.26, larger by $27.04 than it was the previous years. While several resignations occurred and other members were dropped, still the accession of new members made up for these losses. The president thought the dues should be raised on account of the heavy rental of the club rooms. Much more interest in photographic work by members was noticable, and there was better care taken of the club rooms than formerly. Monday, November 22, is second open night, when moving pictures, by Charles Potter, is to be shown. November 29 occurs an illustrated lecture on "Trip Through the Rockies," by Mr. E. Hoch.

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Photographic Section American Institute, 21 West 44th Street, New York. — On November 16 an illustrated lecture on "The Wonders and Perils of American Deserts" was given by Mr. Frederick I. Monsen.

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At the regular meeting of the Boston Camera Club, held December 6, the following active members were elected: Miles Greenwood, Melrose, Clement Lenom, Boston, and Richard G. Turner, Malden. C. O. Bosworth of Randolph was elected an associate member. The meeting was the best attended of any that had been held for some time, about seventy members being present. After a very short business meeting the attention of the members and their friends was held for over an hour by Mr. W. Lyman Underwood with his magnificently illustrated lecture, "Hunting with Canoe and Camera in the Woods of New Brunswick." Mr. Underwood is one of our best-known naturalists and has some of the most marvelous photographs of wild game ever taken. Some of these pictures in the form of enlargements were shown in the Zoological Section of the Dresden Exposition last year and attracted the most favorable comment from eminent zoologists. The members of the Camera Club were hearty in their enthusiasm and appreciation of the lecture. The Exhibition Committee will shortly make arrangements for classes in pictorial photography, studio work, lantern slide making, and enlarging. Members who desire to join may sign their names to the lists on the bulletin board. The advisability of obtaining a new arc lamp for the enlarging lantern is under consideration. It is planned to purchase an automatic arc, which will not need as much adjusting as the one in present use.

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AN exhibition of monotypes and drawings by Mr. Eugene Higgins of New York was held at the Little Gallery of the Photo Secession, 291 Fifth Avenue (between 13th and 31st streets), New York, opening on November 27 and closing December 17. The gallery is open from ten A.M. until six P.M. daily, Sundays excepted. The exhibition opening on December 18 was devoted to a series of lithographs by Toulouse-Lautrec.

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MR. FRANK R. FRAPRIE, Editor of AMERICAN PHOTOGRAPHY, in recognition of his services to photography, has been elected a Corresponding Member of the Dresden Association for the Advancement of Amateur Photography.

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IT has been decided by the management of the International Photographic Exhibition, 1910, at Budapest, that the Hall of Honor of the exposition shall be reserved for the collection of American amateur photographs. This collection will be made by the Editor of AMERICAN PHOTOGRAPHY, and will have as its basis the American amateur pictures exhibited at Dresden, together with additions. It was at first proposed to send these pictures unframed, but the Hungarian authorities are very anxious to study the American styles of framing, and have offered to pay the freight of the pictures from Boston to Budapest and back again.

* * *

WE hope that when you make up your list of magazines for next year you will allow us to quote you a price on it. We have made arrangements with the publishers of all the most important photographic and general magazines, which allow us to make most favorable clubbing rates, and we can duplicate any offer made by any publisher or subscription agency. Do not hesitate to let us know what you want, and we will gladly quote you the price by return mail. Look at our list of club offers elsewhere and you may find exactly what you want.

CHAS. E. DAWSON.

OUR TABLE.

Material for examination and books for review may be sent to Frank R. Fraprie, 6 Beacon Street, Boston, Mass. Any book reviewed will be supplied by our Boston office at the price mentioned.

PHOTOGRAMS OF THE YEAR 1909: Typical Photographic Pictures of the Year Reproduced and Criticized. Edited by H. Snowden Ward, 160 pages; with about 200 engravings. Paper covers, $1; cloth bound, $1.50. American agents, Tennant & Ward, New York.

The publication of Mr. Snowden Ward's annual collection of pictures selected from the work of the year, of which the present forms the fifteenth volume, is an event which is looked forward to with great interest by amateur photographers all over the world, and by American amateurs with as great interest as any. For the American amateur has little or no opportunity to see representative exhibitions of the best foreign work; and Mr. Snowden Ward's annual, giving, as it invariably does, excellent reproductions of characteristic pictures by the larger number of the best-known British workers as well as by a number of lesser lights, and a feast of entertaining and instructive criticism on the works reproduced, affords the American worker a clear and invaluable picture of the current tendencies of British pictorial work, as well as reproductions of a number of masterpieces by non-British workers. Both the general "get-up" of the volume and the quality of the reproductions are of the excellent standard which we have come to expect from this annual, and this in spite of the growing difficulties of reproduction, due, as Mr. Ward points out, to the fact that photographers yearly "become more interested in extreme tone-subtleties, and make more use of weird pigmentary colors."

This is one of the few publications that the photographer simply cannot afford to be without. We imagine that this fact is sufficiently well known to most of our readers already.

Naturally, the chief interest to the pictorialist lies in the fact that, first and foremost, the volume gives him his sole opportunity of seeing what the British workers are doing. We do not take the non-British work reproduced to be representative of the countries from which it comes. The American work reproduced, for instance, though it includes pictures by twelve amateurs, eight professionals, and Mr. Alvin Coburn, cannot be regarded, as a whole, as measuring up in any way to the standard which would properly represent the best work of this country for the year. On the whole, the manifest impossibility of properly representing the best work of all countries in one annual makes us wonder whether anything is gained by an attempt to do so, and whether it would not be better if each such annual dealt only with the work of the country of its origin. The articles by Robert Demachy, M. M. Leon, F. Matthies Masuren, and Walter Burke, covering the progress of pictorial work in France, Spain, Germany, and Australia, are, none the less, interesting reading; particularly M. Demachy's digression on the oil process, which we recommend to those who are gaily preparing to contract that disease. The non-British prints reproduced, unrepresentative as they are, are interesting as including perhaps the five best pictures in the volume; those by Coburn, de Meyer, Annie Brigman, Demachy, and Misonne. Each of these is well worthy of its author; between them they form a quintet to which the British work proper entirely fails to measure up. Of the better-known British workers, E. O. Hoppe shows by his magnificent "Portrait of a Lady" that he has now advanced to the front rank; and Craig Annan has one of the strongest, finest portraits we have ever seen; Bennington, Keighley, and Mortimer are also at their best. There are, however, sad falls! As examples of work which one can get "hung" when one has once acquired a reputation, Malcolm Arbuthnot's "Miss D. E. V." and Mrs. Barton's "Old Fiddler" stand in a class by themselves! On the other hand, one or two new names appear beneath refreshingly good work: H. Powell-Higgins has a landscape panel with a most unusual and delightful combination of decorative effect and quiet humor, and H. P. Wight's "Wet Day-Vire" is altogether one of the best things in the volume; it deserved reproduction on a larger scale and a far more whole-hearted note of appreciation than the somewhat grudging "like-it-against-my-will" remarks which Mr. Ward metes out to it.

Not the least interesting feature of the volume consists of Mr. Ward's running comments on the prints reproduced. This year the date of publication precluded the usual comment on the R. P. S. exhibition and the Salon; and instead. Mr. Ward prints his "Canterbury Address," which is already familiar to our readers. In his comments on the prints themselves he is, as usual, acute, paternal, and interesting; but we note with alarm a tendency to critical Rip-van-Winkleism which we had not expected of him. Rhapsodies based on the antiquated and now generally discarded belief in an essential connection between art and the moral emotions have, in our opinion, no place in criticism; and we will charitably suppose Mr. Ward to be merely suffering from a temporary indigestion of Ruskin. Apart from one or two purple patches of the nature referred to, Mr. Ward's criticisms furnish, as usual, an interesting illustration of the views on pictorial photography held by a number of British critics. His enthusiasms, of course, still run in the direction of the makers of very photographic landscapes, the self-plagiarists on well-worn themes, and the "cathedral men." To Americans, on the other hand, the interesting workers of Britain are quite another set of men. We can well understand why, as Mr. Ward points out, the verdict of the Dresden jury on British works was in some cases different from the British verdict. While, therefore, we are, on the whole, entirely out of sympathy with British critical tendencies, in so far as Mr. Ward represents them, we envy the British workers the possession of a school of criticism which is encouraging, earnest, enthusiastic, and consistent. Unfortunately America has yet no standards of pictorial criticism; still these will come, and, when they do, they will, we venture to prophesy, be radically different from those of the school so ably led by Mr. Snowden Ward. — F. A. L.

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Die Photographische Kunst im Jahre 1909. A Year-book of Artistic Photography. Edited by F. Matthies-Masuren. Published by Wilhelm Knapp, Halle. Eighth year of issue. Price, $2.50.

A peculiar interest attaches to this sumptuous annual this year on account of the Dresden Exhibition. Herr Matthies-Masuren has taken full advantage of his opportunity; more than half of the 165 reproductions are of pictures exhibited at Dresden, and, as pointed out in the preface, this has permitted a closer approach than usual to a solution of the difficult problem of presenting characteristic work from all countries. If the volume has thereby lost some of the nature of the annual in the strict sense (not a few of the pictures reproduced date from before 1909), it has gained immeasurably in several respects. No pictorial worker should be without this volume; not only does it present a choice and representative selection from the Dresden Exhibition, but it affords a unique opportunity for comparison of the work of different countries. It is of extreme interest to observe how unmistakably the work of the various countries differs in *style*, and comparison is facilitated by the grouping together of the pictures from each country, — a procedure which might be followed with advantage by the compilers of similar yearly collections. The extremely interesting selection of the work of the Dutch and Belgian photographers, which is little known to the American amateur, and the numerous examples of the naturalistic style of most of the German workers, — a style which is delineative rather than imaginative, technically striking rather than tasteful, and which shows to better advantage in the strong portraiture than in other branches, — are particularly useful and welcome features. The reproductions are carried out with that extreme perfection of the half-tone process for which the annual is noted, and which is rarely or never met with outside Germany. If we may be pardoned for a criticism of such unusually excellent reproduction work, we would observe that the consistent employment of a very full-blooded scale of tone naturally detracts from the effect of those pictures which in the original are pitched in a high key or make use of the subtler gradations of a narrow tone range. Three gravures and a color-reproduction of an autochrome by Kuhn are included.

Turning to the articles, we find an interesting but too short impression of some features of the Dresden exhibition by the Editor; not the least interesting observation being that the German professional photographers, not in isolated cases, but in considerable numbers, are striving after originality and avoidance of convention. Herr Masuren shrewdly observes that adverse criticism of this tendency is to be deplored as not only discouraging, but unnecessary, since the public put a pretty stringent limit to unconventional treatment in portraiture! Ernst Schur addresses himself to the eternal question of the relation of photography to art, and writes in a spirited manner while avoiding the absurdly exaggerated claims so often met with in discussions of that topic. Willi Warstat puts forward a plea for the movement and life of the city as a subject for pictorial photography superior to the architectural treatment which is more commonly followed; an interesting piece of argument, but hardly convincing to those who know what can be done by men like, say, Coburn and Dudley Johnstone, in rendering the "spirit" of a city. We have little patience with E. O. Hoppé's jeremiad on the subject of British pictorial photography; the conditions he deplores are in many cases world-wide and not peculiar to Great Britain, and in other cases he has indulged in obvious over-statement and prejudice in his apparent effort to prove that everything photographic in his country is going to the dogs, — the R. P. S., the exhibitions, amateur photography, professional photography, photographic journalism, and everything else. We are less concerned with the matter of this splenetic outburst, however, than with its manner and the place and circumstances of its publication. In the first place, the writer of a review of the year's work in his own country for a foreign publication owes it to his compatriots to give an unbiased, judicial account of that work, which Mr. Hoppé certainly has not done; and, in the second place, if Mr. Hoppé's feelings really required relief in such bitter criticisms of the photographic institutions of his country, the proper vehicle would surely have been one of the British journals (where they might conceivably have done some good) and not a foreign publication. A short but very interesting note on pictorial photography in Holland by one of the best-known Dutch pictorialists, some genial notes of appreciation by Fritz Baer on certain pictures reproduced in the previous volume, and an article on expression in portraiture complete the volume, which we cordially and unreservedly recommend to our readers as full of interest from cover to cover. — F. A. L.

JAHRBUCH FUER PHOTOGRAPHIE UND REPRODUKTIONSTECHNIK FUER DAS JAHR 1909. By Hofrat Dr. Josef Maria Eder. Wilhelm Knapp, Halle, a. S., Germany. Price, $2.50.

Like the British Journal Almanac, this year-book, the representative scientific photographic annual, is a bulky volume, extending to over seven hundred pages. It attempts each year to cover the progress of photographic science. It contains a large number of original memoirs on various branches of photography, and in addition a review of the most important articles which have appeared in the photographic journals of the world. The book is embellished with a number of inserts showing various processes of reproduction, — half-tone, photogravure, and three color.

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A B C GUIDE TO AUTOTYPE CARBON PRINTING. The Autotype Co., London, 1909. Price, 50 cents.

This interesting manual on carbon printing is founded on the well-known "A B C Guide" by Sawyer, and brings the work up to date in a somewhat shorter form and at a much lower price. The directions for every part of carbon printing are extremely clear and concise, and the book forms a complete and wholly satisfactory guide to carbon printing.

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BOSNIA AND HERZEGOVINA. By Maude M. Holbach. New York, John Lane Company, 1909. Price, $1.50 net; postage, 15 cents.

A year ago Miss Holbach took us through Dalmatia, one of the most attractive portions of Europe, and this year her wanderings by carriage and automobile have been in the two inland provinces behind this picturesque coast. It is a region not as well known to tourists as it deserves to be, but which is rapidly becoming familiar to the reader of travel books, of which several have been devoted to the subject in recent years. Miss Holbach's travels coincided with the recent period of disturbance, and she was fortunate enough to be in the Sandjak of Novibazar at the time when the Austrian troops were evacuating and surrendered the district to the Turks. Her account of this proceeding is most interesting, and of historic value. The whole book is full of interesting detail and is entertainingly written. It is illustrated by some most excellent photographs of the historic and primitive country and its inhabitants.

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THE EVOLUTION OF WORLDS. By Percival Lowell. Illustrated. New York, The Macmillan Co., 1909. Price, $2.50 net; postage 26 cents.

Dr. Lowell is a profound scientist and a great astronomer. Besides the ability to solve difficult problems in planetary astronomy, he possesses the rare gift of investing the dry bones of science with the fascination of a romance. In this volume Dr. Lowell has pieced together plausible theory and established fact to draw a detailed picture of the birth, evolution, and death of the solar system. No intelligent reader will be willing to lay aside the book until it is finished, for chapter leads on to chapter with all the absorbing interest of an exciting novel. The book is illustrated with some beautiful photographs and a picture of the planet Saturn, which forms the frontispiece, shows a pure and artistic beauty of composition which one rarely finds in astronomical photographs.

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A-ROVING HE WOULD GO. By Milton Reed. Boston, Sherman, French & Company, 1910. Price, $1.25 net.

The author of this book is a retired lawyer living in a Massachusetts city, who is utilizing his retirement to see strange lands and study the peoples of the earth. His book is a partial record of two extended trips, one of which took him around the globe. It is in no sense a conventional book of travel, and the author devotes little space to describing the ordinary sights of travel. What has interested him mostly is the way in which different peoples live and act. The relation of races to their environment is the most interesting of studies, and he has made some pertinent observations in this field. Although without illustrations, the book will make a pleasing gift book, being beautifully printed and bound.

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THE new Vulcan Dry Plate, according to the manuacturers, is "built to compete with any dry plate on the market and show more quality than the best." This is, naturally, a tolerably big undertaking, to "compete with any dry plate" and to "show more quality." Were the announcement made by any company other than the Defender it would, of course, be taken with the proverbial grain of salt. But the Defender Company is a hide-bound, conservative organization, one of the oldest manufacturers of photographic goods in the country, and, in the past, when it said something it meant what it said. So we make the announcement as it was given to us, adding the following from the company's statement: —

"It [the Vulcan Dry Plate] is the result of three years of constant effort to make a dry plate that combined the two essentials necessary to a successful reception by the intelligent photographic trade. These essentials are speed and quality. Without being unnecessarily verbose, we can say truthfully that in comparative tests with plates of recognized highest standard, the Vulcan Plate proved itself faster and of better quality."

* * *

WE have received for trial from Griffin's, Kingsway, London, England, a sample packet of their snow-white satin Bromide paper. This paper gives beautiful black and white prints especially suited for professional work because of their likeness to carbon prints. They are easily and quickly toned to Sepia of a rich dark shade, and we can heartily recommend the paper.

Messrs. Griffin will send samples of prints and paper, with developing formulas, to any reader of AMERICAN PHOTOGRAPHY who will mention this notice.

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THE Eastman Kodak Co. announces the awards, professional class, 1909 kodak advertising contest, as follows: —

Our contention that better pictures for advertising purposes could be produced by means of photography than by any other artistic method has been still further justified by the result of the 1909 Kodak Advertising Contest.

It is gratifying to note the continued interest of competitors in former contests, and also the highly artistic work submitted by newcomers in the field.

We extend our thanks to the profession for the keen interest exhibited and for the highly successful results achieved.

The jury which passed on the work was highly competent, consisting of Mr. Rudolf Eickemeyer, of Davis & Eickemeyer; Mr. A. F. Bradley, ex-president of P. A. of A., of New York; Mr. Henry D. Wilson, Advertising Manager of *Cosmopolitan;* Mr. C. C. Vernam, General Manager of the Smith & Street Publications, and Mr. Walter R. Hine, vice-president and general manager of Frank Seaman, Incorporated, one of the largest, if not the largest advertising agency in the United States. Mr. Frank R. Barrows, ex-president of the P. A. of A., was announced as one of the judges, but was unavoidably detained, Mr. Bradley acting in his place.

Pictures which were not awarded prizes are to be returned to their owners, but in this there will be a slight delay, as we wish to go carefully through them for the further selection of pictures for purchase. During the winter we shall publish in booklet form a number of prints from among the prize winners, sending a copy to each contestant, and at that time will announce the terms of our 1910 competition.

The prize winners — Professional Class: —

First prize, $500, William Shewell Ellis, Philadelphia.

Second prize, $400, Percy De Gaston, Lincoln, Neb.

Third prize, $250, Mrs. Gertrude Käsebier, New York City.

Fourth prize, $150, Bruguiere & Eisen, San Francisco, Cal.

Fifth prize, $100, S. H. Lifshey, Brooklyn. N. Y.

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WITH THE CAMERA.—Notes from the Illinois College of Photography. The College Camera Club last week held its first monthly reception and exhibit of the winter, the program consisting of music and a lecture and criticism of pictures by Professor Cook, with some delightful refreshments. The Basket Ball Team is rapidly getting trained into fighting shape, and is at present having some spirited contests with local city teams before playing out of town. Mr. R. Leigh, student from Seoul, Korea, has finished a course in engraving and three-color work, and will leave for his home next month, where he will engage in the printing and engraving business. Mr. Ben Koehler has returned to the college to finish his course in engraving after an absence of five months at his home in Wisconsin, where he was called on business matters. The students held an entertainment in the Chapel at Engraving Hall last month, and among the features were music, debate, and the students' newspaper which "cut, thrust, and spared not." A fine time was enjoyed by every one. Mr. C. E. Merkal has finished a course in photography at the I. C. P. and taken a position in Indianapolis. Mr. James Snitzler, advertising expert from Chicago, gave a clever talk on advertising to the students on the 10th. The secretary yielded to the call of the wild last month and put in a week of long lovely days straddling through the brush in pursuit of the more or less elusive Illinois quail. The students' register for the fall enrolment contains so many foreign flourishes that it looks much like a list of delegates at an international Esperanto convention, as witness some of the following: K. Okada, Bruno Luft, J. Sicotte, A. Wago, Y. Masuko, S. Saba, Ant. Undernahrer, H. Aholt, C. Iversen, R. Elosua, Ozaki, *et al.*

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BURROUGHS, WELLCOME & Co., the well-known manufacturing chemists, whose New York office is at 45 Lafayette Street, have prepared for distribution among photographers a very interesting booklet entitled "Photographic Facts and Fallacies." This contains a considerable amount of valuable information and is well worth reading. Any of our readers may obtain a copy by addressing a post-card to the firm's New York office.

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MESSRS. J. H. DALLMEYER, Ltd., of London, have recently prepared a booklet entitled "Large Pictures on Small Cameras." This deals with the Adon lens, a telephotographic instrument magnifying from two to ten or more diameters, requiring but a short bellows, and suitable for use on hand cameras. The book shows a number of interesting pictures of many varieties taken with the Adon and Junior Adon. The American agents for the lens are Burke & James of Chicago, who will send a copy of the book on request.

* * *

IN inspecting the exhibit of Burke & James of Chicago at the Rochester convention last summer, we were impressed with the merits of the new Ibso shutter, illustrated herewith. This shutter, which is sold at a medium price, is constructed on lines similar to the well-known and high-priced Koilos. The Ibso is the only shutter, marketed at a medium price, built on the sector system, the fastest method known for between-the-lens shutters. The Ibso can be operated at speeds from 1-150 to 1 second. Bulb and time exposures are also provided for. It has a safety lock to prevent accidental exposures. It may be operated by the finger lever or the metallic (antinous) release. The workmanship and finish are excellent, and the lightness and simplicity of the shutter will commend it even to owners of very high-class outfits. A descriptive circular will be sent on request.

* * *

THE Series VI Cooke portrait lenses still continue to increase in popularity, and their success among the best photographers has been very marked indeed during the past year. It is their wide range of usefulness that has made these lenses so popular. The mere revolving of the front portion of the mount to a given point introduces that roundness and softness desired by the good professional when photographing heads at close range, and this has the effect of increasing considerably the depth of focus. For groups and figure studies, the softness may be reduced slightly at pleasure.

The Series VI lenses are extremely compact. They are less bulky than some other makes of equal focus and aperture, and may thus be used for commercial work outdoors, with or without a focal plane shutter. With the revolving portion of the lens-mount set to its farthest limit, these same lenses give mathematically fine definition throughout their plates, even with the full aperture of f. 5.6, and may be used for copying and enlarging with the same success as may the other series of Cooke anastigmats. It is probably true that no other portrait anastigmat lens has so wide a range of usefulness.

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A. C. HAYDEN & Co., of Brockton, Mass., are introducing to the market a number of specialties which should be very interesting to the average amateur. These include a film tank for all sizes up to 4 x 5 and a film printing frame, which makes prints from an uncut roll and is so arranged that any part of the negative may be placed over any part of the printing paper. It is fitted with adjustable mats. Another of their novelties is a convertible frame for plates which takes any negative from 1 inch wide up to 6½ x 8½. This is extremely useful for making postal-card prints from films.

* * *

ORIGINAL Carl Zeiss Lenses made in Jena are sold in this country by E. B. Meyrowitz, whose advertisement appears in this issue. Write him for a catalogue.

* * *

THE washing of prints to be sure that the hypo is eliminated is a problem which besets many an amateur. It is solved by the Ingento print washer, made by Burke & James.

CORRESPONDENCE.

This column is open so far as space will allow, for the expression of readers' opinions on subjects of general interest. The Editors are not responsible for opinions thus expressed.

Dear Sir, - I am enclosing a photograph for criticism in the "Portfolio." It is the first thing I look for when the magazine comes each month. It is very instructive to read the criticism on the prints and then to turn back to the print itself and compare them. I can agree with most of them. Very likely if I were better able to see the less glaring faults I would fully agree with them as a whole. I have not submitted anything for your pruning knife in quite a while. Not because I was afraid of your medicine which is sometimes quite bitter to take, but no doubt beneficial to many of us would-be photographers. It does a fellow good to get ripped up the back once in a while. He is apt to get conceited and think he is a great artist because some of his friends pat him on the back and tell him so, especially when they want him to give them prints of something they fancy. The print which is submitted is coated on the back with white shellac which I use for mounting, being non-curling and easily applied. I use a hot flat-iron for mounting the prints, which remain perfectly flat. The shellac must be brushed over the backs of the prints before trimming them. I stick pins through the corners of the prints, face down on a soft pine board, where they are left to dry. — J. M. K.

AMERICAN PHOTOGRAPHY: - December 3, 1909.

Gentlemen, — Firstly, this is not to find fault. I take it for granted that you are open to receive suggestions so I want to advance one in regard to the pictures which you reproduce for the "Portfolio." It is that four half-page pictures would be much better than a lot of small ones. The small ones always being grouped together in an irregular manner make a kind of hodgepodge, and neither one of them seems to get its proper effect. I think that in a Salon the makers of pictures would kick at such an arrangement, and most of them would refuse to exhibit if they were so hung. It seems to me that the surroundings of a picture are important. Then again little prints like these look like "Brownie" work, and in the reproduction seem to lose more than larger ones.

I think that most of us would like quality more than quantity.

Yours respectfully,

William H. Blacar.

December 4, 1909.

Mr. William H. Blacar: —

Dear Sir, — We thank you for your kind letter of suggestion of the 3d. It seems to us, however, that the present arrangement is the best which we have yet adopted for the "Portfolio," and it seems to please most readers. They find that criticisms mean much more if the pictures are reproduced, and they do want as many reproductions as possible, therefore the twelve or so pictures which we can reproduce in this manner are much more useful than four would be, as you suggest.

You must realize that no attempt is made to select these pictures for artistic merit, or to make artistic presentation. As far as the size of the reproductions is concerned, a great many of these are actually Brownie prints, and none of them are bigger than the post-card size, originally, so that they are not reduced nearly as much as some of our principal illustrations.

Yours very truly,

American Photographic Publishing Company.

December 5, 1909.

American Photography: —

Gentlemen, — Yours of December 4 received about the illustrations in the "Portfolio."

From your standpoint you are right. You say that none of the originals are over post-card size and many of them are "Brownies." As ninety-nine out of a hundred who use Brownies and a big proportion of those who use post-card size never see the ground glass of a camera, and merely snap-shot at anything that pleases them, the reproductions *can't* amount to much, and it seems almost a waste of time to criticize them.

Respectfully,

William H. Blacar.

[This month, for various reasons, we have reproduced but five of the "Portfolio" pictures, and made them larger. We would be very glad of an expression of preference from those who send prints to the "Portfolio," as well as from those who read it and do not contribute, as to the character of the illustrations. We can reproduce a number grouped on a page as we have done for three months, or we can make better and larger reproductions of a smaller number, as is the case this month. We desire to make this department, like every other one, as helpful as possible.

As to the size of the prints criticized, we see no reason why the earnest worker with a small camera is not entitled to as much consideration and attention as the man who uses an 8 x 10 view outfit. Years ago every photographer was obliged to use large plate cameras and compose every picture on the ground glass, because the manufacturers could supply nothing else. To-day very few amateurs start with plate cameras, and films are almost universally used among beginners. The editor may have a theory that to make pictures you must use a ground glass for composition; in practice he uses a film camera for ninety-five per cent of his work and succeeds in making pictures which pass exhibition juries. It is perhaps more difficult to compose a picture in a small finder; on the other hand, the reduction in size may tend toward simplification by leading to the choice of subjects which stand out strongly in small space. At any rate, we are willing to criticize any print submitted, be it an inch square or 11 x 14. — Eds.]

To the Readers of American Photography: —

In view of Mr. Fraprie's rather misleading statement about myself in the December number of American Photography, I would like to go on record as saying, that I am now as ready as ever to help any photographer seeking my advice or help. And I can say the same for all the Secessionists. Any one caring to see me personally can find me daily, Sunday excepted, at the little Gallery of the Photo-Secession, 291 Fifth Avenue, New York, from ten till noon, and from two till six P.M., where and when all my time belongs to the public. Those who want advice and can't come personally can reach me by mail. No one has ever found me unwilling to help them, providing it has been in my power to do so. This is my reply to Mr. Fraprie's erroneous statement that I told him that I was through with missionary work.

Yours truly,

(*Signed*) Alfred Stieglitz.

[A reading of our editorial referred to will show that no statement was made such as that referred to in the last sentence of the letter of Mr. Stieglitz. We simply stated our opinion of the belief of the Secession, drawn partly from numerous conversations with Mr. Stieglitz in the last few years, and partly from their practical withdrawal from the field of photographic exhibition. Such public exhibitions were what we referred to as missionary work, for it is a matter of common knowledge that Mr. Stieglitz, now, as in the past, is at all times ready to give his time, strength, and advice to all who seek him. — Eds.]

PRACTICAL HINTS

A NEW DEVELOPING AGENT, SATRAPOL.—Schering & Glatz have recently introduced a developer under the above name that is more economical than others and possesses the excellent quality of getting out the detail with good vigor of density. We have given it several trials and mixed up the following formula: —

Satrapol	120 grains
Hydroquinone	120 grains
Warm water	32 ounces

When dissolved, there was added, sulphite of soda (dry) 1½ ounces. After this was completely dissolved there was added carbonate of soda (dry) 1 ounce; and finally of a ten per cent solution of bromide of potassium, 2 fluid drams.

Four ounces of the above concentrated developer mixed with 8 ounces of water made an excellent working developer. Several exposed 4 x 5 plates were developed with great facility, resulting in negatives of great clearness and good density. The same developer was used on Azo, Artura Iris, Eastman's bromide paper and Cyko post-cards, all of which developed out perfectly.

They have also introduced a series of small color tablets which, when dissolved in water, will color velox or other similar prints green, red, blue, or other colors after a few minutes' immersion. We were able to color a bromide lantern slide blue with one of these tablets.—F. C. B.

* * *

TO DEVELOP CUT FILMS.— In developing cut films, such as the Premo Film pack, I mix up a good tank developer, or use the prepared powders which the Eastman Company put up for the development of their plates and films, mix it for a ten or fifteen minute developer as desired, and pour in an 8 x 10 tray. This I take into the dark room and unload my film packs in it, first, however, allowing them to soak for a few moments in a tray of water.

In this way several dozen films may be developed at once by placing all in the tray at once and changing them as one changes prints when washing in a tray. The films do not stick together as many people might suppose, and development may be watched,—an advantage over the tank system.

Roll films I develop in like manner, first immersing in water, then drawing them through the developer until the divisions show, when I cut them apart and develop as cut films.

The standard Eastman developer is pyro, and is likely to stain the fingers; but if one will mix his own developer from glycin, this may be avoided and better results obtained, as glycin is a better developer for either under-exposed or over-exposed films, such as the ordinary amateur is apt to have.—W. ELLIS WELCH.

* * *

PHOTOGRAPHS FOR REPRODUCTION.— When making a photograph to be used for reproduction or half-tone work several things should be considered. First we will take up the surface of the print. It is commonly known that a print having a glossy surface is the most desirable, especially if all detail is to be preserved in the reproduction. This is a fact, but a half matte or even a dead matte print will make a first-class reproduction, provided the surface of the print is smooth. The gloss or luster is not necessary, but as such surfaces are usually smooth, they have grown in favor to such an extent that half-tone workers demand prints having such a surface, or they will refuse to guarantee a good half-tone plate. In this they err; but as so many dead surface prints are accompanied by more or less grain, the half-tone workers concluded that only glossy surfaces were suitable. The blame was not placed on the grain, where it belonged. Of course almost all photographers know better than to expect a good reproduction from a coarse-grained print, but there are still a few (and some of the better photographers too) who seem to think that to get a really artistic reproduction the print used must be artistically printed on a rough surface paper. At any rate they continue to send to magazine editors for reproduction beautiful specimens of their work printed on a rough paper.

It is hard to get a real artist-photographer to allow a print from one of his portrait negatives to leave his hands when printed on a smooth luster paper. To his eye they look so much better printed on a paper giving a softer and more velvety effect. It is true that they are better to look at, but not better for reproduction. Then another thing that half-tone plate makers almost insist on is a print having a reddish or brown tone. Prints having such a tone will reproduce well, but an olive-black print will reproduce fully as well. The prejudice against black and white prints for reproduction purposes has been caused by the blue-black tone. If there is a trace of blue tone in the black print it will lose quality in reproducing, but an olive-black print will come out rich and vigorous in the reproduction, just as a red or brown print will. This is accounted for by the actinic effect of the blue rays reflected from the blue-black print, which give false tone values during the process of making the half-tone plate. Olive, like brown and red, is non-actinic, and therefore the tone values are faithfully reproduced from prints finished in any of these three tones. To get a good reproduction, give the process man a smooth print, either glossy or dull, but be sure it is smooth. Also give him a print having an olive, red, or brown tone, and the reproduction will please you, if he has done his part of the work correctly.— *Artura Bulletin.*

* * *

SUNLIGHT TROUBLES.— There was recently a lengthy and well-written article in one of the technical journals on "Overcoming the Effect of the Sunlight in the Studio." Both myself and other prominent portraitists on Fifth Avenue have sunlight half of each day in our studios (in clear weather). We accept the inevitable and overcome it!

Try this: Arrange white Holland shades so as to cut off all direct sunlight and note the diffused glow of your studio. Posing in such a light one may desire a little more shadow, which is easily obtained with a head or hand screen. The noted picture of Booker Washington, which has been so warmly endorsed by himself and friends, and painted life size, was made in the afternoon with the sun blazing on the (side) light. Of course we much prefer to regulate our appointments so as to avoid the sunny part of the day, but when we cannot control the hours of our clients, we find it perfectly practical to make good work under the glow of diffused sunlight. It all comes back to the man behind the camera and the use of his brains! A man with judgment and resource can always "find the way." I have often made good negatives with a suspended Welsbach light, and once by the light of a parlor match!— GEORGE G. ROCKWOOD, *in Portrait.*

* * *

COLD WEATHER.—For the next few months where cold weather prevails due allowance should be made for a change in the action of all chemical solutions that are used in a chilled condition. This applies particularly to developing solutions. Cold developer will act slower than developer at normal or above normal temperature. We believe this is generally understood, but we mention it at this time of the year lest you forget. Supposing you expected your developer to work as freely and quickly as it did in hot weather, what would be the natural result? Over-exposure. In other words, instead of giving a normally exposed print time enough to develop, you would consider it under-exposed and increase the amount of exposure on the balance of the prints so that they would develop up at the usual speed. This would mean an overtimed batch of prints. Prints with increased contrast, blocked detail, and a general muddy appearance. Extreme over-exposure would produce flat, muddy prints. One way to avoid such a condition is to keep your developer at normal temperature, which is 65° Fahrenheit; but as it is not always convenient to do so, we caution you to beware of over-exposure.

One way to determine whether a print has normal exposure regardless of the temperature of the developer, is to watch the action of the print in the developer. Developer at any reasonable temperature will develop a print, and if the print has been normally exposed the image will build up to the proper depth, when development will pause or stop. If development has to be forced beyond the pausing or stopping point, the print is under-exposed. Give more exposure. If the print reaches the desired depth before the development pauses or stops, it is over-exposed. Give less exposure. By remembering that the chemicals used in the developer work slowly when the solution is chilled, you will avoid some of the difficulties you might otherwise encounter. One other thing to remember is that ice cold wash water will not remove the hypo from prints in as short a time as water at a higher temperature; and if the water is very cold, prints should be carefully separated and washed very thoroughly.— *Artura Bulletin.*

* * *

BY DEFINITION is meant the precise portrayal of the minutest detail, and it depends on the ability of the lens to bring together at one point on the plate a very large number of light rays proceeding from the corresponding point of the object being photographed. A lens which does not so concentrate the rays gives a picture which is a blur, inasmuch as the images of points overlap. The Anastigmat excels in its microscopical sharpness of definition, and gives negatives from which enlargements of many diameters may be made. — *Lens Pointers.*

* * *

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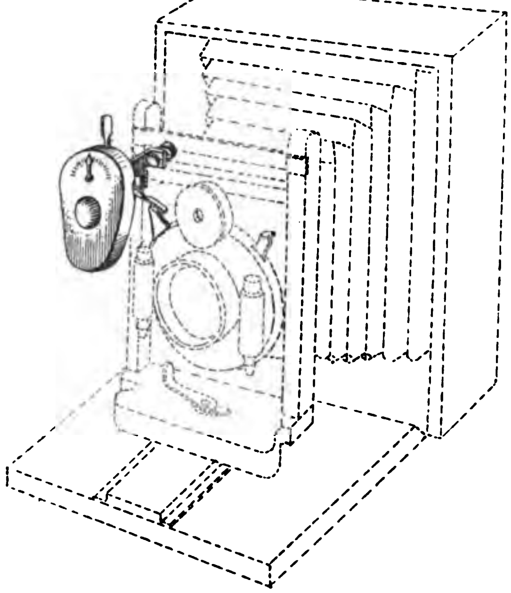
RECENT PATENTS.

CHAS. B. DAWSON.

Abstracted by F. C. Beach. Copies of any of these patents may be obtained at 10 *cents each from Munn & Co., Patent Solicitors,* 361 *Broadway, New York City.*

September 7, 1909.

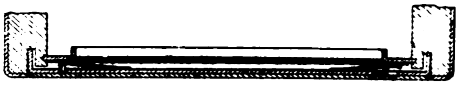
933,312. CAMERA ATTACHMENT. Herman G. Korinko and Anton J. Asp, New York, N. Y.



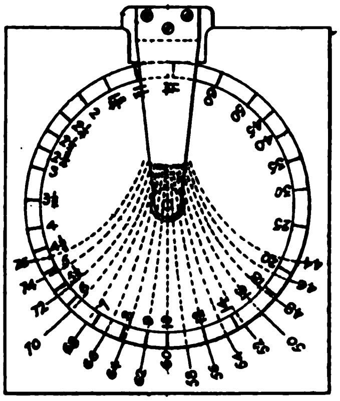
The attachment has a series of gear wheels and springs similar to an alarm clock in its idea, for releasing and controlling the period of time a shutter is open, or begins to open, and the time of closing. It is enclosed in an outer casing secured by a screw clamp to the post of the camera front in such a position that the arm or lever with a flattened end will strike the usual release lever of the shutter and cause the latter to operate at a predetermined time. The upper lever is intended to regulate the time exposure begins, in order to permit a person to be in the picture to have time to arrange himself for securing the best result, just prior to the actual exposure.

933,470. CAMERA BACK. Robert Kroedel, Rochester, N. Y.

The sectional illustration shows on the upper part a removable metal plate or back of a camera with an under plate attached, having ends bent at right angles to fit into a longitudinal light-tight recess running through the side edges of the camera back frame and narrow longitudinal metal pressure spring plates secured to the under side of the camera back plate for pressing evenly upon a metal guide formed by a metal frame, recessed into the camera back sides, which frame is equal in size to the exposure aperture of the camera. The film from the spool in one end of the camera back is passed over the sides of the flat metal frame to the winding spool at the other end, and secured in the usual manner. Then the back plate with the longitudinal spring plates attached is pressed into place and locked. The plates clamp the entire side edges of the film against the flat surface of the metal frame and thereby retain the film over the exposure aperture in a perfectly smooth position without wrinkling. As the film is wound off the even pressure of the side plates upon the edges keeps the film perfectly flat and uniform. Another feature is its adaptability to hold a glass plate for taking single pictures when desired. Also a slide on the back to cover up the viewing non-actinic aperture when using a plate in place of the film.

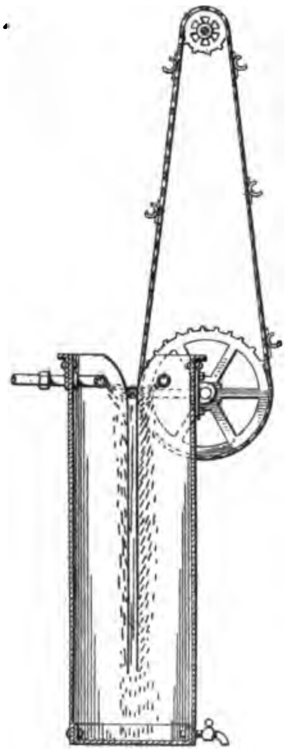


933,605. APPARATUS FOR DETERMINING RELATIVE TIMES OF DEVELOPMENT OF PHOTOGRAPHIC PLATES OR FILMS FOR DIFFERENT TEMPERATURES. Alfred Watkins, Hereford, England.



The basis of this device is on the temperature of the developer solution at the time it is to be used. According as it may be 60°, 65°, 70°, 75°. Fahrenheit or Centigrade, so is the time determined for the proper length of the duration of development. In the illustrations a square-shaped cardboard base carries on its surface the temperature scale radiating out from the center in dotted lines, while a rotatable circular disk of cardboard above the square card, mounted at its center upon a slide which extends upward and rearward over the edge of the square card base, then downward and under the base, sliding in a groove to be adjustable with reference to an auxiliary scale of temperature coefficient values printed on the back (not shown). On the face of the square card base is also arranged, outside, and concentric with the periphery of the disk, equal radial divisional lines having reference to a logarithmic scale, printed on the edge of the rotary disk, representing the times and duration of development. By this means the time and duration of development for other temperatures of the developer are quickly ascertained. He attaches the card to packages of developer material, and with the use of a liquid thermometer one can determine how long the plate should be left in the solution to complete development. The outer row of figures represents the temperature scale.

933,640. BLUE-PRINT WASHER. Henry C. Gawler, Chicago, Ill.



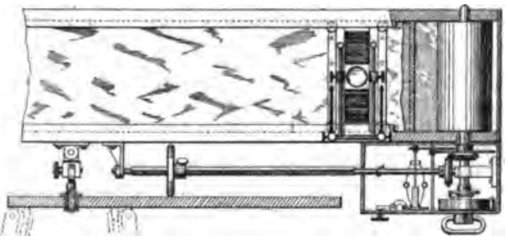
The illustration is a sectional end view of the washer, which is a tank[1] having an outlet faucet at the base for waste washing water, and at the top are two stationary horizontal perforated wash water supply tubes. Attached to the outside of the top of the tank is a transverse shaft with sprocket gears on each end which engage endless sprocket chains having hook supports at intervals to hold a transverse rod and the end of a blue-print sheet attached thereto. The endless sprocket passes over an upper pulley, one on each end of the upper shaft. The blue-print to be washed is attached to a rod, then the latter is placed in the hook-shaped supports on the chains, the film, or printed side, facing outwards. The other end of the print is secured to a second stationary rod which sits on top of the tank. The blue-print sheet thus is folded in the tank, having its printed faces outward, against which the spray of water from the pipes impinges and washes off the portions unacted upon by light. As the sprocket wheel is revolved the upper part of the sheet is gradually lowered into the tank. When the washing is finished, by reversing the sprocket wheel, the sheet is raised out from the tank, to dry.

933,713. FOCUSING DEVICE. Robert Kroedel, Rochester, N. Y.

The sectional illustration shows an upper pivoted lever, with a peculiar form on the left end, the upward projecting part being for the finger to press upon to depress the lever, while the outward projection is to represent a pointer to point towards a scale on the lowest plate attached to the camera base. The right end of the pivoted lever has a downward projection, which fits into a recess in the bed plate and into notches on the edge of the focusing or lens front of the camera to lock the movable bed at any desired focus it is moved to. A small flat spring under the left end of the pivoted lever forces it upwards and thus locks the bed plate of the camera. To move the bed plate in or out for focus adjustment the left end of the lever is pushed downwards, which raises the opposite end out of the notches in the bed plate.

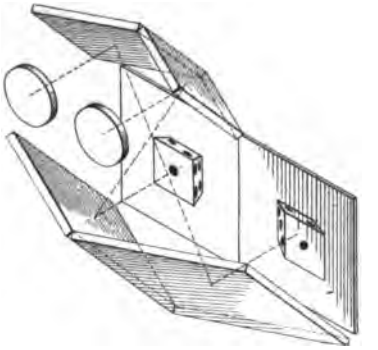
September 14, 1909.

933,801. PHOTOGRAPHIC CAMERA MECHANISM. William Verbeck, Manlius, N. Y.



It is a new arrangement to obtain a panoramic picture on a plane surface, like a glass plate or flat film. The illustration shows only half of the length of the frame which holds the plate. The narrow-shaped camera observed near the right, which has the usual extensible bellows, is supported in the frame at the back, which has four rollers, two above and two at the bottom, that travel laterally along or upon guide rails observed in dotted horizontal lines. Two adjustable tubular standards project outward horizontally and support the lens front of the narrow camera bellows, which enables the focus to be adjusted. The back frame of the camera is secured to an endless flexible curtain or slide of the plate holder in front of an opening in the shutter. The curtain passes over the actuating roll at the right and another loose roll at the left (not shown), and as it moves horizontally it carries bodily with it the camera, causing the image to be impressed on the plate in successive steps. In other words, the plate or film is stationary while the camera moves,—a sort of reversal of the usual method. The plate frame is supported on a pivot (as noticed at the left) secured to the tripod top shown in section. The apparatus may, by this means, be tilted up or down to suit the circumstances under which the photograph is to be taken. Movement is given to the machine by a main-spring and clock mechanism fixed in a receptacle on the right, below the main curtain roller, which rotates a horizontal shaft on the left by means of a bevel gear. The portion of the shaft outside of the working mechanism is made square shaped, on which is a scale marked and an adjustable bearing pulley or roller is secured to the shaft by a thumb-screw. The supporting roller may be adjusted longitudinally on the shaft to suit varying velocities according to the scope of rotation desired to obtain any specified length of picture. The illustration shows the roller near the center of the tripod head, hence in that position the rotation of the whole apparatus will be more rapid. While revolving around the tripod center and sweeping around the circle or any part thereof, the curtain shutter and camera moving at the same time to the right throws the panoramic image on to the sensitive plate. A small key button on the under side of the actuating spring chamber releases the governor to start the mechanism and also stops it when the exposure has been completed.

933,844. STEREOSCOPIC APPLIANCE. Gustave A. H. Kellner, Rochester, N. Y.

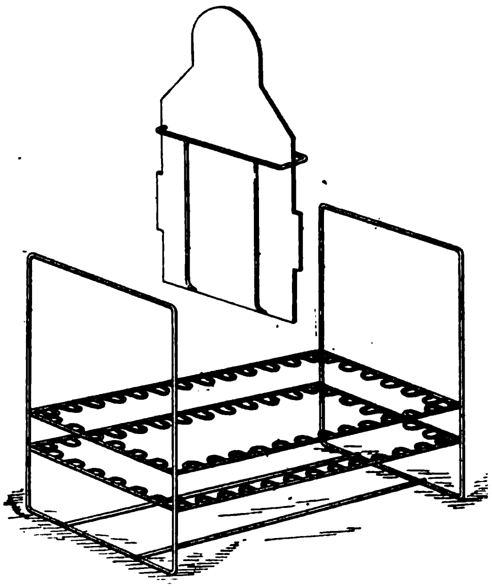


The appliance is intended to obviate the transposition of stereoscopic prints by the mounting of the left print on the right, and *vice versa*, to secure the true stereoscopic effect. It is done by having two sets of mirror reflectors placed at a slight angle to each other in order to throw the image from, say, the right stereograph upward at a lateral angle till it impinges upon an upper reflector, also at a counter angle by which the picture ray will be directed horizontally to the view lens. In the diagram the pictures are shown in a straight line; following the dotted line from each it will be seen that the ray from the right picture strikes the angular face of the lower mirror fixed at a vertical angle of 45°, then is reflected upward latterly to the upper left hand mirror, thence in a straight line rearward to the round viewing lens. The left picture is transferred in the same way to the right viewing round lens.

934,242. KINEMATOGRAPH FEED MECHANISM. CHARLES URBAN, London, England.

In connection with a shaft crank are arms carrying claws (hook shaped) for engaging the perforations of the film and imparting the usual feed motion, at the same time disengaging them in right sequence through the medium of a special cam movement.

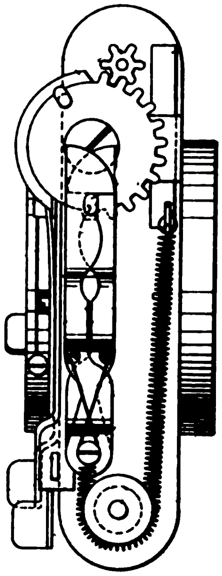
934,331. PHOTOGRAPHIC WASHING-BOX. NATHANIEL C. MERRILL, New York, N. Y.



The outer case is of the usual type, containing a perforated raised bottom and a funnel and pipe on one end for the introduction of solutions. The invention is mainly two end rectangular vertical wire frames, secured together at the bottom by two longitudinal wires, and above are two rectangular fluted frames separated a short distance apart. The glass negatives are put in these spaces, then the whole is immersed in the outer case. A special holder for retaining films in a flat position with back of film against the holder is shown in the small illustration. It holds two films, and is inserted in the wire frame grooves the same as a glass plate is.

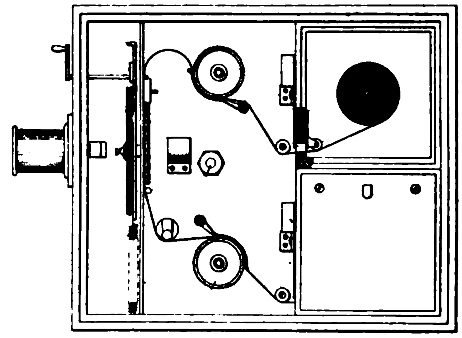
September 21, 1909.

934,581. PHOTOGRAPHIC SHUTTER. JOHN E. THORNTON, Manchester, England.



One of the early forms of the Thornton Pickard shutter. In the illustration of the end of the shutter case will be seen an upper small pinion gear and a bottom pulley, etc., which has double grooves. One end of the exposure curtain is attached to the upper pinion roll and the other or lower end is wound over the lower roll inside the casing. The upper pinion is on the actuating roll and gears into a rotatable segmental gear plate having on the surface two projecting pins nearly diametrically opposite each other. The actuating spring is secured on the right side of the case to an adjustable slide for the purpose of increasing or decreasing the tension on the spring and regulating the speed of the shutter; the lower, or other end of the spring, after passing around the lower shutter roll pulley, is connected to the bottom end of a pair of scissor-like jaws, the latter being held closed by a light wire spring. They are pivoted to a sliding plate back of them in which a lever for setting them into operative position engages. The upper ends of the jaws are semicircular, or arrow shaped, with a hook form below. By raising the sliding plate with the setting lever, the jaws are elevated until one of them, coming in contact with the upper projecting pin on the segmental circular actuating plate, slides up over the pin and then springs forward, hooking on to the pin with its horizontal edge. This puts tension on the spring. The release lever locks the sliding plate and the setting lever falls to its normal position. By operating the release lever, the spring pulls downward the plate carrying the jaws, and these carry down the pin on the segmental plate, rotating it quickly half a revolution, which in turn actuates rapidly the pinion carrying the shutter curtain, and thereby makes a quick exposure. The pin that was on the lower side of the segmental plate is now carried to the upper side, and it is only necessary to raise the jaws and plate with the setting lever again to slide over this pin to pull the plate downward by the release lever, and move the shutter curtain in the opposite direction, the idea being to constantly have the lens protected after each movement of the shutter. There is a special detail, or stop, not shown, for holding the shutter aperture open, to coincide with the lens for purposes of focusing or making of time exposures.

934,894. MOTION-PICTURE CAMERA. OSCAR B. DEPUE, Chicago, Ill., and CHARLES F. JENKINS, Washington, D. C.



The camera has two particular features: one is a device for obviating undue friction on the surface of the film as it emerges from the box enclosure to pass over the usual feed roller down behind the lens. This avoids the possible high tension, electrical fogging of the film, due, it is said, to frictional contact; the other feature is a peculiar method of varying the size of the shutter aperture while in operation to make the intervals of exposure on the moving film farther apart or fewer in a given time, to accommodate the photographing of special subjects to better advantage — such, for example, as an approaching military procession. In the distance the movement of the procession is so slow that fewer impressions are needed on the film to reproduce it, but as it comes nearer to the camera the shutter apertures are decreased in size to correspond to the more rapid movement of the objects near the camera. The shutter regulating crank is observed above the lens in the illustration.

September 28, 1909.

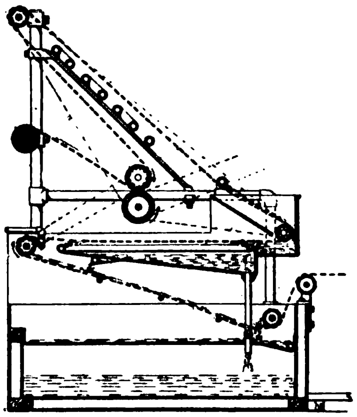
935,115. PHOTOGRAPHIC DEVELOPER. William F. C. Kelly and John A. Bentham, London, England.

The patentable ingredient appears to be borax acting as a preservative alkali. A paste is made of metol, 2 grains; hydroquinone, 4 grains; metabisulphite of potassium (powdered), ½ to 1 grain; borax, 10 to 20 grains; colloid q. s.; glycerine q. s. (optional for assisting solubility). This paste is coated on the back of a glass plate or film. After exposure the plate or film is put in water, the developer dissolves off from plate, and development at once proceeds. The claims are: —

1. A photographic dry developer containing borax as a preservative.

2. A photographic dry developer consisting of metol, hydroquinone, potassium metabisulphite, borax, colloid, and glycerine.

935,148. APPARATUS FOR DEVELOPING AND WASHING PRINTS. Henry C. Gawler, Chicago, Ill.



The developer reservoir is supported upon an adjustable frame fitted with rolls at the bottom to adjust it to or from the washing machine. The exposed, long, nearly endless sheet passes from the exposing apparatus into a trough-shaped vessel containing the developer under a roll to immerse the paper in the same, thence on and out to the fixing and washing machine shown in the illustration. The heavy dotted line indicates the course of the paper through the machine. The bottom tank contains a fixing solution which is pumped up through a pipe to a rectangular shaped sprayer pipe, forcing the fixing solution minutely in spray form all over the under side or picture side of the sheet as it slowly moves along in a horizontal direction. The fixing solution then falls into a drip pan below, from which it is led by a pipe back to the bottom fixing solution tank previously described. It is thus continuously circulated around. Underneath the fixing drip pan are a series of rolls or stationary, transverse bars arranged on an incline. The developed sheet enters the machine at the right, then passes down under a roll and upward over the transverse bars and over a roll at the left, then in a reverse horizontal direction to the right over the fixing solution sprayer. On the way up the incline a transverse water sprayer, located beneath the fixing catch basin, washes off the developing solution and flows over the sheet down the incline, where it passes off through a drain pipe to a sewer. The paper sheet, after leaving the fixing sprayer, passes upward over a roller on an incline, under a transverse water sprayer, to wash out the fixing solution from the film. Here the water flows down the inclined sheet to a catch tank below, and then is conducted off through a second waste pipe. Arranged above this sprayer pipe on an incline on a frame are a series of transverse steam pipes which evaporate the water in the paper and dry it, after which the paper bearing the finished prints passes over the extreme top roll down under the incline between two drawing rolls, then upward to the final winding roll on the extreme left. The main object of the machine appears to be to apply the fixing solution and wash water only to the picture or film side of the paper, thereby securing the most economical use of the solution and avoiding the impregnation of the body of the paper with the solutions, as would be the case if the paper was drawn through them.

935,156. PHOTOGRAPHIC DEVELOPER. William F. C. Kelly, London, England.

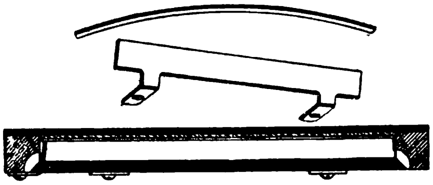
A combination of metol, hydroquinone, potassium metabisulphite, and borax similar to the formula in patent No. 935,115, with the addition of a colloid, such as gum tragacanth or like adhesive, glycerine or glucose syrup, or other substitutes, to assist in solubilities. The different chemicals are mixed dry, then moistened to form a paste. The latter is then pressed into depressions in a plate to form tablets, which are removed, when dry, and packed for use. To prepare a solution it is only necessary to dissolve a tablet in a given quantity of water to obtain an inexpensive developer of the proper strength. The following is the claim: —

A photographic developer consisting of a solid dry compacted composition in tablet form and containing borax as a preservative.

935,167. DRIVING MECHANISM FOR KINEMATOGRAPH APPARATUS. Carlo Rossi, Italy.

It consists of an intermittent driving mechanism operated from the main driving shaft. On the shaft is a cam disk having the cam groove in its periphery which oscillates a lever laterally for automatically entering and withdrawing the film projections upon a plate that is moved vertically by a horizontally sliding cam plate operated by a connecting crank bar attached to a bearing or pivot on one side of the cam disk. By this arrangement the film moving pins always enter and withdraw from the film perforations accurately and do not tear the film, because they do not move vertically with the cam plate until they have completely entered the film perforations.

935,486. PRINTING FRAME. Louis D. Gagné, Manchester, N. H.



The object of this improvement is to secure rigidly in a printing frame a film or glass negative smaller than the frame opening from which numerous uniform duplicate prints can be made.

The longitudinal section shows the two ends of the frame supporting the usual glass base plate upon which the film negative is placed. On the left inside end is a metal cross plate screwed to the wood, its lower edge being slightly above the glass base. On the right inside end of the frame is a second cross spring plate bent at right angles at the top and secured to the frame by screws on the upper side. It is shaped as shown in the perspective lower view, and gives like a flat spring at the bend. Two thin spring metal bow-shaped flat springs, as shown in the third illustration, are placed on each edge of the film negative on the glass, one end of each spring being pressed under the left-hand cross plate, and the other ends under the right spring cross plate. They thus hold the film negative firmly in position. The sensitized paper is put in the usual way and the back of the frame clamped over the paper.

Camera Notes

ORGAN OF THE
CAMERA CLUB OF NEW YORK
121 West 68th Street

JANUARY, 1910

Board Meetings. — The regular meeting of the Board of Trustees was held on Tuesday, December 7. Mr. Gerrish, the vice-president, presided in the absence of President Crosby.

The Committee on Entertainments reported that the date had been fixed on Friday evening, January 14, 1910, at Mendelsohn Hall, for the new popular lecture by Mr. H. Snowden Ward of London, England, entitled "The Marvels of Photography." The price of tickets was fixed at $1 each, with no reserved seats. Applications for tickets may be sent to the secretary of the club.

Mr. Frederick Schmid was elected as an active member.

Other matters of minor importance were considered, after which the meeting adjourned.

Interchange Slide Exhibitions. — The New English Set. This was shown the evening of November 19, with a good audience present of members and friends. It was the unanimous opinion that the slides were the finest in quality and subject that the club had seen for some time. The set represented work from English photographers that had been selected by the editor of the *British Journal of Photography* on the request of Mr. F. C. Beach, the general manager of the Interchange, for use among the American clubs and societies. The set consists of one hundred and twenty-five slides by twenty-three different contributors, and covers a variety of subjects. Some of the most striking were a "Sunlit Cloister," by S. A. Kimber; "Cast Ashore in the Storm," by Ellis Kelsey; "Evening Clouds, Lake Como," by S. Dudley Johnston; "A Sunny Gleam," by J. J. Phelps; "Daybreak," by C. E. Wanless; "Sunshine and Woodland," by J. D. Berwick; "Interesting Castle Views," by Godfrey Bingley; "Whitby and River Wharfs," by F. Nicholson; "Alpine Views," by Dr. C. Thurston; "Holland: Cathedral Interior," by F. G. Tryhorn; "Preparing Dinner," a difficult interior by Rev. H. W. Dick; "An Approaching Storm," by H. Holt; beautiful snow scenes and remarkable interiors with figures against the light by S. L. Coulthurst; excellent landscapes by Fred Judge; "A Wintry Sunset" and a genre picture, "Lost in Thought," by Graystone Bird, showing excellent technique and good composition; excellent flower pictures by T. G. Hibbard and H. T. Malby; four attractive genre studies by A. G. Thistleton; "The Engagement Ring" and other subjects, by James Shaw; young bird pictures by R. A. Malby; interior cathedral views of Mandrille Abbey and Lincoln Cathedral, by J. R. Wigfull; "Zurich by Night" and "Passing Clouds," by R. Williamson; remarkably good seascape and winter views by C. F. Orston.

On Friday evening, December 3, the slides of the Columbia Photographic Society of Philadelphia and Montclair Camera Club of Montclair, N. J., were exhibited; there were several excellent slides in both sets.

Print Exhibitions. — A set of fifty photographs, the work of the Wisconsin (Milwaukee) Camera Club, was hung in the gallery from December 14, 1909, to January 1, 1910. The print committee is preparing a set of fifty prints of our club to be forwarded to the Milwaukee Club for exhibit there. Entries closed on December 27.

Another unusual exhibit was a series of direct (autochrome) color photographs of the Grand Canyon of Arizona, California, Gardens, Portraits, and the Magnolia Horse Show, illustrating direct-color photography, by Miss Helen Messinger Murdock, of Boston, Mass., from December 6, 1909, to January 1, 1910. Each picture was framed and all were hung up in tiers in front of a window, to be viewed by daylight. Many were 6½ x 8½ in size and portrayed the colors of the Grand Canyon and other subjects quite faithfully. It is the largest single exhibit of autochromes that has been given at the club.

The 1910 Interchange Set. — Members interested in having the club supply a new set of lantern slides for the coming year are requested to hand in slides to the Lantern Slide Committee before January 2. Wednesday nights are reserved for the testing of slides, when the Lantern Slide Committee operate the lantern for this purpose. It is desired to secure a representative set comprising the work of many different members.

The readers of American Photography will confer a favor on the advertisers, the publishers, and themselves by writing to our advertisers for information and catalogues.

AMERICAN PHOTOGRAPHY

VOL. IV. FEBRUARY, 1910 No. 2

AFTER THE THEATER A. H. BLAKE, LONDON

NIGHT WORK WITH THE CAMERA

A. H. BLAKE, M. A.

(Founder of the Society of Night Photographers of England)

A GOOD deal of attehtion was given in this country last winter to the subject of night photography, many articles were written, and a good deal that was new and interesting discussed. Personally, I consider that the time for good night work is even more with us in the spring and summer than in the winter, when the cold and wet are too much for the health of even some of the most robust workers, so that I make no excuse for bringing forward this subject at the present time.

Perhaps I can hardly do better than give my American readers a *resumé* of some of the most interesting points which were raised in the discussions at our society, and try to interest more workers on your side in this fascinating pursuit.

THE THAMES EMBANKMENT AT NIGHT A. H. BLAKE, LONDON

The strong point which we insisted upon in founding the society of night workers was to pursue the subject as far as possible apart from all faking and double exposing. Of course it was seen that it was comparatively easy to set up a camera in a window overlooking some thoroughfare where pedestrians and vehicular traffic were abundant, to take a very rapid snap-shot by daylight, close the shutter, lock up the room and, returning after dark when the lights were lighted in the street below, to give another exposure of sufficient duration to register the lights and so procure a composite negative. What we are setting ourselves to ascertain is what can be done in cities and in the bare country, amidst artificial lights and by the light of the moon, without resorting to dodging. Any one, for instance, can fake a moonlight scene by giving an exceedingly rapid daylight exposure upon a striking sun and cloud effect, but we wanted to know more about the conditions of getting successful moonlight scenes by pure photography. Any member of the society is at liberty to produce faked pictures for his own use; but if he joins our company he must not show them as night pictures at our meetings, but give us help in the genuine quest of true night pictures.

I want in this article to indicate some of the chief difficulties we found in this kind of work, and the suggestions that have been made for overcoming them.

When working in towns and including artificial lights in our pictures, we were soon brought up hard against our old friend halation in his most fiendish form. I found by experiment that the true time of exposure for one of our great street arc lamps is three seconds. With this exposure the gradation of the light from its central core of light away to the lesser light of its circumference is clearly rendered, but these lamps included in pictures of streets that had to have anything from

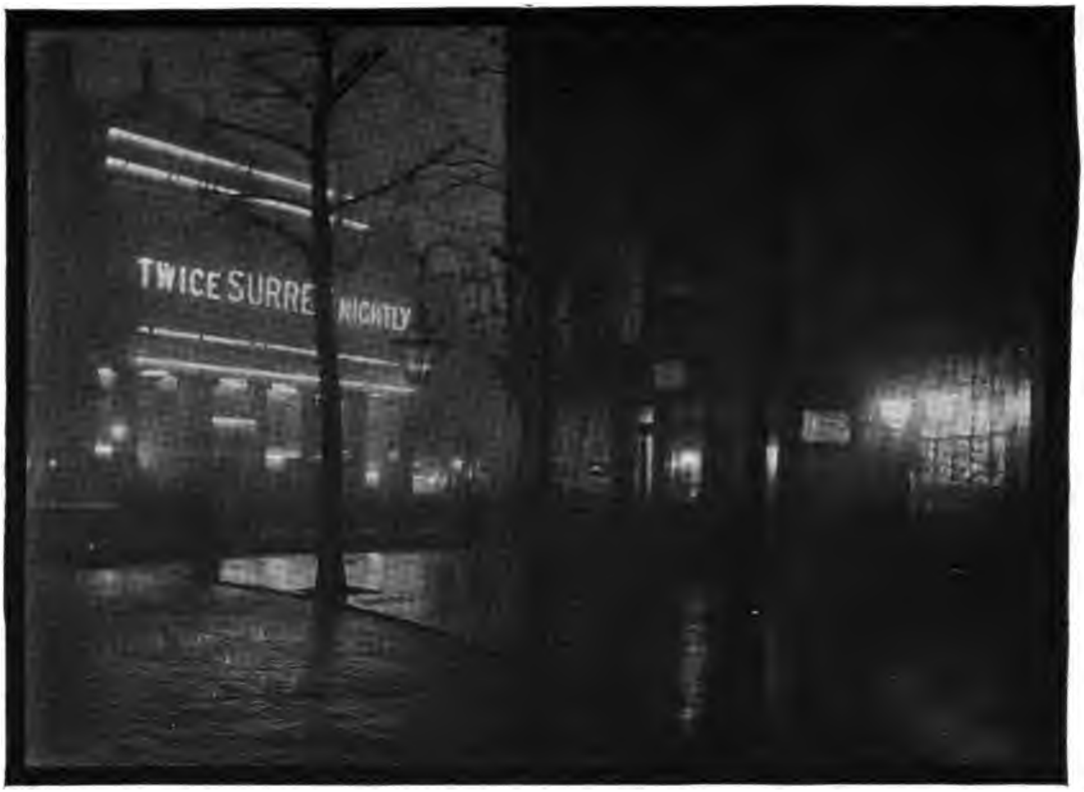
NIGHT PORTRAIT ON THE EMBANKMENT A. H. BLAKE, LONDON

ten to thirty minutes were two hundred to six hundred times over-exposed. It is then no wonder that the light fiercely beating on those spots, spread round them more than a halo,— rather a flare of light,— in which all detail of the lamp and its surroundings was lost. The old remedy was of course tried for the old disease, and backed plates trusted in; but the light proved too strong for them, and though the halos always present on unbacked plates were avoided, the halation still persisted. Following a suggestion made by letter to the club, wherein the writer spoke of his successful combating of halation by their means, we had some plates coated specially for us, through the kindness of Mr. Wellington of Wellington & Ward, on a basis of green glass. These plates are commercially impossible on account of their costliness, and also because the green color of the glass affects to a slight extent the tonal relations of the print; but our experience is that they will face the fiercest light without showing appreciable halation. The use of these plates, combined with careful development in a very dilute developer, conquered the halation trouble.

This use of very dilute developer is the main feature in successful night work. Many of our most prominent workers can almost overcome the difficulties of halation by the use of much water in the developer, some using it diluted from start to finish and others beginning with the ordinary strength of developer till the detail is fairly out and then allowing the plate to do the rest for itself by flooding it with water. Many opinions are held as to the best developer to use. One very successful member of our society always uses tabloid metol, another finds dilute pyro soda the most effective, but personally I never vary from our old friend M. Q. diluted with five or six times the usual quantity of water. The kind of negative to be aimed at is a somewhat ghostly one, yet showing something more than plain glass in nearly all its shadows. It is remarkable how true a slide of a night scene even the most ghostly negative will produce, provided it be of the right tonal value and without too much clear glass in the shadows.

But after all the really important point in night photography, as in all other kinds, lies in the exposure. Given correct exposure to start with, many of the other difficulties disappear, while the rest are distinctly lessened. If the problems of successful day exposure are difficult of solution, much more so those at night. Night exposures are where day exposures used to be some twenty years ago in the matter of tabulation and scientific certainty. At the present time the factors and deductions from them relating to exposure are all known and reduced to a complete system for the benefit of the photographer. He can buy an exposure notebook and work out each instance for himself with almost absolute certainty. The country, so to speak, has been surveyed, roads made, the traffic regulated, and to make serious mistake is the exception rather than the rule. But the moment we begin night photography we are in an unsurveyed country, roadless and guideless, where each one must make his own way by the aid of the stars and a compass. In other words the conditions of night exposure have never been reduced to a science, or any elaborate experiments made and the results tabulated for the benefit of the beginner. This work no doubt the Society of Night Photographers will attempt with the data which its members collect. In the meantime a member of the society has given Messrs. Burroughs, Wellcome & Co. the benefit of his experience in the matter, and the result is the tabulated suggestions found in their exposure notebook.

Let me endeavor to give the reader some idea of the kind of exposures required in an ordinary town, well lighted in its streets and shops, with the usual aperture of lens and a good fast plate. Given a dry night with a moon shining so that the house tops may be registered against the sky, but not so strong as to help much in the general lighting of the subject, in which case one third less may be reckoned on the exposures. Supposing the lens to be working at f. 8, a shop front with strong lights such as now are the rule in large towns will take from two to three minutes. Open street scenes will require seven to twelve minutes, but if there are dark objects near the camera which require registering with detail, twenty minutes will not be overmuch. The presence of snow or rain will make great differences in the duration of exposures which may be reckoned at one third less, and under favorable circumstances one half of the above. Such are the general conditions of exposure in towns with the ordinary outfit, but when we come to increase the speed of the plate and the aperture of the lens, the exposures are very considerably reduced, until the snap-shot almost comes within the range of possibility. Let us suppose for the sake of argument that we have in use, as so many of us have over here, a 2B portrait Dallmeyer working at f. 3.3 and a plate (Barnet Super-Speed Ortho) which has just been placed upon the market, whose rapidity is 400 H. & D. Taking our illuminated shop front at two minutes' exposure with the ordinary conditions, the two minutes will by the plate speed be reduced to one minute. The lens at f. 3.3 will certainly be eight times as fast as one at f. 8, which reduces the exposure to about six seconds; if very skilful development be used and the plate forced with warm developer, we may give one second — or at most two — and get the important details registered, though the shadows will be under-exposed and heavy; still it proves that we are on the verge of being able, say, to snap-shot



THE SURREY MUSIC HALL A. H. BLAKE, LONDON

figures looking into shop windows by their own light with comparative ease. For country subjects pure and simple, without any artificial light to aid us, we have at the present time no data to go by, and each person must make his own experiments; but in general it may be said that moonlight has much more effect when persistent upon the plate than daylight workers would suppose, and that when snow is on the ground exposures of reasonable length are quite sufficient.

In doing town subjects it is desirable to avoid the inclusion, if possible, of the strong lights, and this can generally be done by so placing the camera that the arc lamp is hidden behind the trunk or foliage of a tree or the corner of a building; this is really much more effective than including what is far too glaring an object and draws too much attention to itself. The foliage is often very charmingly lighted and a fine effect is gained by getting the lamp between two trees so that the one tree appears as a silhouette and the other as a delightfully lighted object. An excellent subject is also made by the shadows cast by autumn and winter trees on the pavement; and not only have I given some attention to this class of subject in London streets, but have drawn attention to it in the press.

When snow or rain are present the exposures, as was hinted just now, can be considerably reduced, and those who object to the long cold waits while the night exposures are going on, should not only use the fastest plates and the fastest lenses, but also start to work when it rains or when snow is on the ground, as the exposures at these times can be reduced by one third to one half.

The composing of night pictures is decidedly more difficult than in daylight; not only are many of the objects dark upon the screen and difficult to distinguish, but there is a perfectly bewildering number of lights, sufficient generally in one picture to give interest to half a dozen. It will certainly not be easy in lighted street scenes to get the due concentration which we may desire. The constant passage of lighted vehicles before the lens is also a source of great trouble, for unless the lens be shielded each time, every vehicle that passes will leave its long trail of light across the plate; it is tiresome to place and remove a cap each time, as well as probably productive of double image, so my own plan is to hold the spread-out hand before the lens, to lower it when the coast is clear, and to raise it in front of the lens when a vehicle passes. It is not necessary to touch the lens, and as long as it is near enough to hide the light of the vehicle all harm will be prevented.

Those who take up the study of night photography will find it a most fascinating pursuit. There is something distinctly novel in starting out to photograph at twelve o'clock at night and carrying on the work into the small hours; the effects are novel and striking, and moreover we have something other than the usual thing to show to the judges when the annual exhibition time comes round.

A PRINTING PAPER FOR THE AMATEUR

Black, Brown, Green, and Blue Effects

JAMES THOMSON

A PRINTING paper well adapted for the amateur who aspires to artistic effect, is herein described. Easy to work and inexpensive, results may be had with it that rival the more intricate working sorts, and the more expensive, — for mere cost does not denote merit.

A formula whereby varied results are obtainable it was mine to work out and reduce to a reliable basis some half a dozen years ago, but it has never till the present time been disclosed. In fact, not until quite recently have the possibilities of the process been realized at anything like true value.

It is a process based upon the salts of iron in likeness to kallitype. From one and the same coating may be had not only brown in varied shades, but greens, blues, and black, and varieties that are neither one or the other; we might call the latter intermediate shades. For example, we can have a combination of brownish green shadows and half-tones in green absolute.

The straight prints are in brown, but greens are as easily produced. Also as to time, the entire essential operation, once the print is taken from the frame, need not exceed six minutes; say one minute to develop and another five minutes to clear or fix.

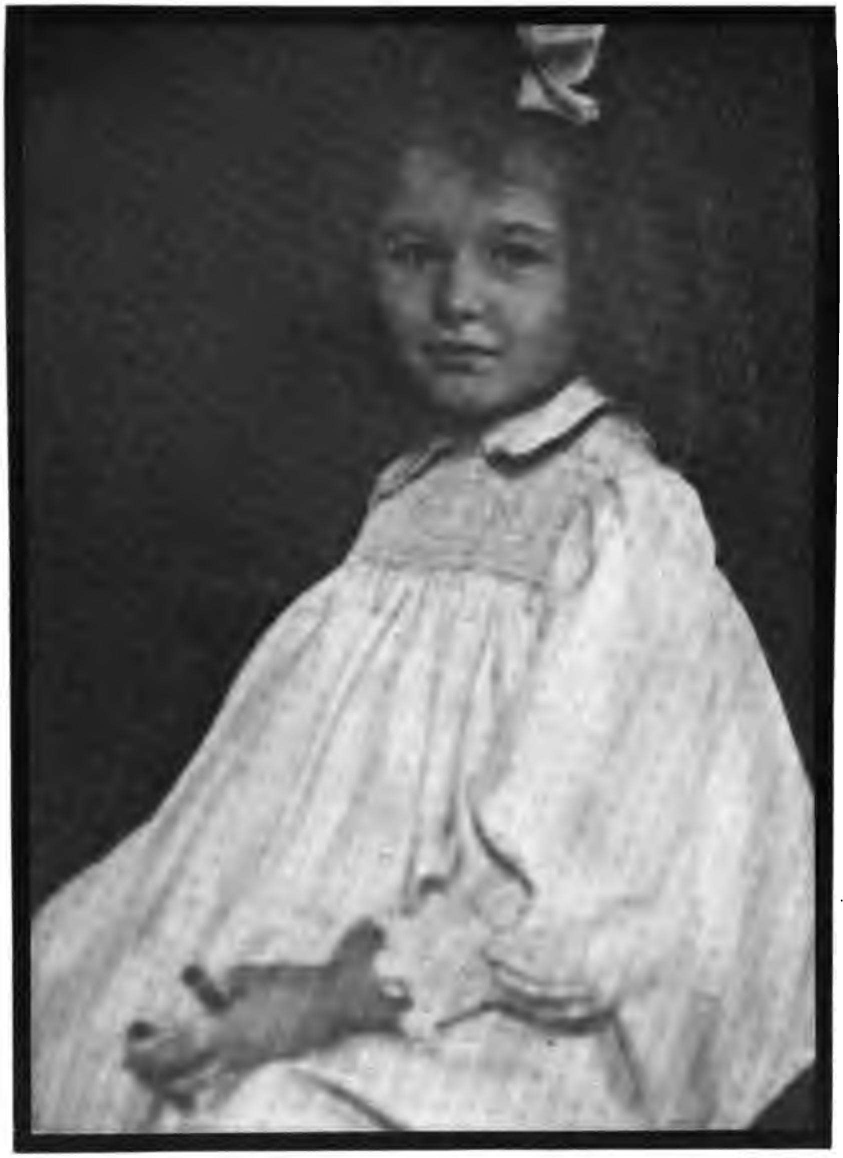
After exposure in the frame it devolves upon the worker to decide upon which particular effect he would have, whether shades of brown, green, or blue, but not *black*, — that coming under a special division of treatment.

A Suitable Paper

In my own practice — as regards home sensitized paper in general, and this formula in particular — I have found "ledger" and heavy "bond" stocks most suitable. For this particular process a firm-bodied paper is best, and personal preference is "Scotch linen ledger," which is tough, and has a well-sized smooth surface, though it will be none the worse for an additional coat of arrowroot. Bear in mind that only by having a good body of size can rich, juicy tones be had in any process.

This particular brand of paper comes in sheets of the dimensions of 19 x 22 inches, of light and heavy weight, and in colors at least two, — white and buff. It is to be had of the wholesale dealer in five-pound lots, costing me last trip thirty cents a pound.

The buff, — or perhaps the shade may be better described under the appellation of "amber," — is admirable for both brown effects and green; for the latter color particularly, because on a white



INNOCENCE
FEDORA E. D. BROWN, GRAND RAPIDS
Sixth American Salon

ground the half-tones are apt to run to blue, — say, greenish blue. For absolutely pure greens, therefore, the buff paper is advisable; and as for the browns, all the world is aware of the artist's partiality for a toned ground where browns are involved.

A desirable paper for fine work is that marketed under the trade mark of Strathmore water-color paper. Unlike the Whatman brand, "Strathmore" is non-porous, is firm bodied and susceptible of hard treatment. In toning with the salts of uranium I have never been able to clear the whites on rough Whatman water-color paper, whereas with "Strathmore" there has never been the slightest difficulty. In the latter, whites can be cleared absolutely and with ease.

This quality in a paper I hold to be a desirable one where sensitizing is done with the iron and uranium salts. Tone bromide or gaslight papers in a uranium solution and I doubt if the whites can be cleared absolutely, by even the most thorough washing, short of at the same time weakening the image. If we succeed in clearing the whites, we also succeed in reducing the brilliancy of an otherwise satisfactory print.

And yet, if we would woo permanency in our pictures, the high lights must needs be cleared, otherwise any remaining sediment of ferricyanide must necessarily be detrimental to the print. Removed all sediment must be, and a paper from which it can be easily washed is to be favored.

For brilliant results in any process a substantial body of size is essential. Only by its presence upon the face of the paper can richness in the deposit of metallic particles be assured. There is something more required than a mere staining of the paper. We must have *depth;* and for that quality we must have due richness of organic matter upon which to reduce the chemical particles that give us color.

To prepare a suitable size, take for each ounce of water from 3 to 5 grains of arrowroot, with a teaspoon rub up smooth in a cup with a little *cold* water. Then in a porcelain lined kettle or pan pour the proper quantity of warm water, add the arrowroot and bring to the boiling point, when the mess will jellify — become clear. To help in drying qualities a small quantity of alcohol may be added, if desired. Complete operation by straining through a piece of worn linen.

SALTING SOLUTION

Water, distilled	1 ounce
Ammonia iron citrate (green scales)	35 grains
Ferric oxalate	8 grains
Oxalic acid	6 grains
Oxalate of potash, neutral	22 grains
Nitrate of uranium	20 grains
Gum arabic	10 grains
Bichromate of potassium solution	3 drops

To prepare the latter solution, dissolve 10 grains of bichromate of potassium in 1 ounce of distilled water.

Coat the paper with salting solution, and when dry apply in like manner the following: —

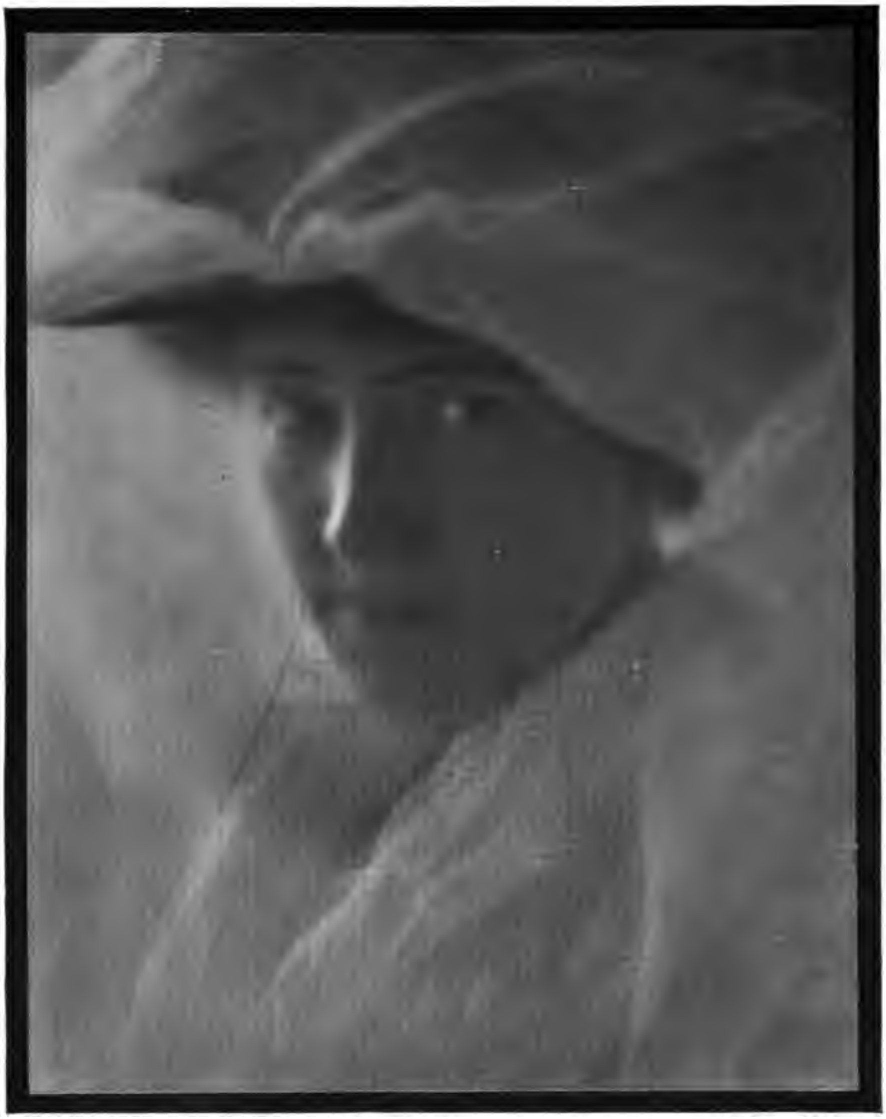
SILVER SOLUTION

Water, distilled	1 ounce
Silver nitrate	50 grains
Citric acid	30 grains
Tartaric acid	10 grains

When dissolved, filter or decant.

Salting solution should stand for twenty-four hours before being used. Silver solution may be used as soon as dissolved.

Coating may be done with a flat camel's-hair brush, a wad of absorbent cotton, or a brush (squeegee, rather) made from a strip of celluloid (a 5 x 7 cut film) covered with Canton flannel or white velvet. The celluloid is folded once the long way, the two ends being brought together and secured with wire, or a couple of McGill fasteners; where the fold comes is left *bulbous*, and over



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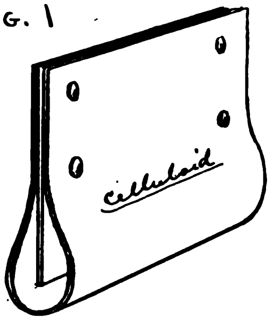
THE GRAY VEIL
J. W. GRIERSON, NEW YORK
Sixth American Salon

FIG. 1



SPREADER FOR COATING PAPER

FIG. 2

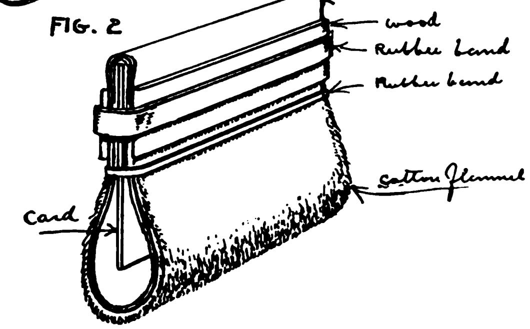
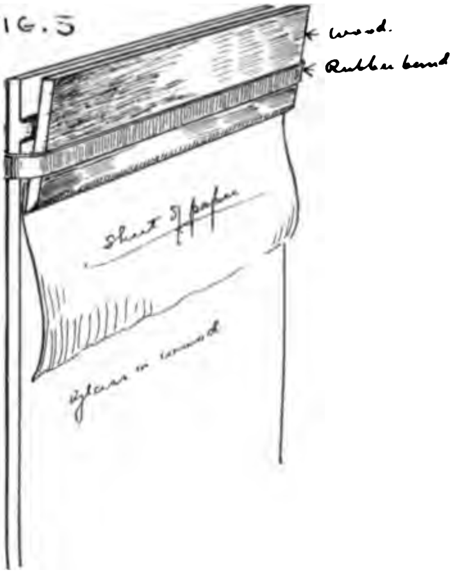


FIG. 3



it is drawn a strip of flannel the same dimensions as the celluloid, the whole being held together securely with a strip of wood on either side, and rubber bands.

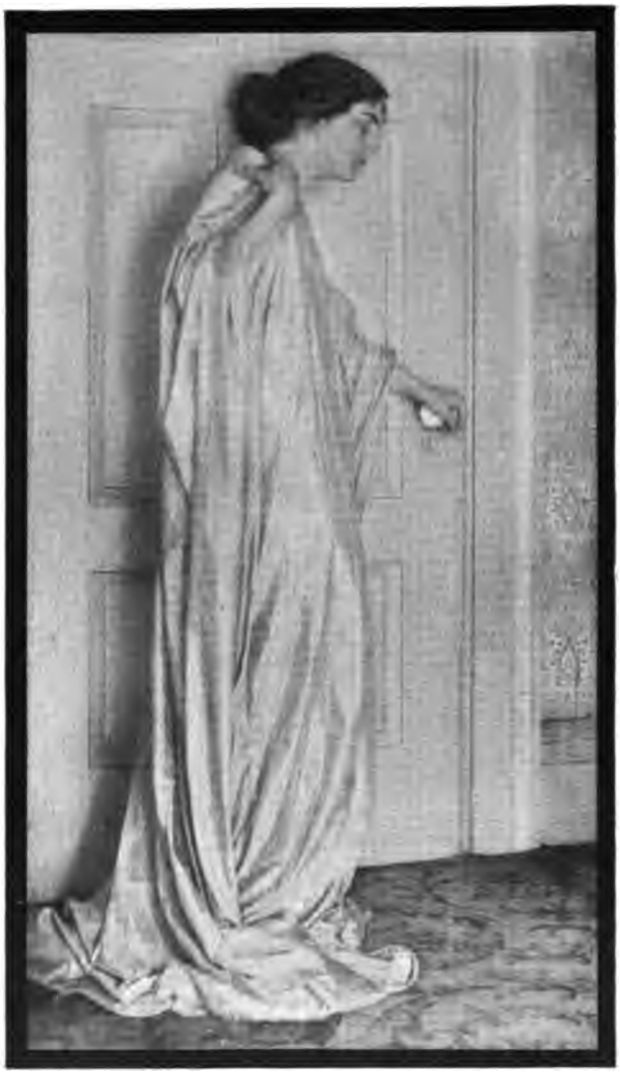
This is a modification of the "Blanchard" brush, and I may remark in passing that the generality of workers now use something of the kind in sensitizing in preference to a regular brush. The outer flannel covering may be shifted about so that more than the exact center may be utilized, and when soiled thrown away and a fresh piece substituted. White velvet, which may be washed when soiled, is favored by some workers, but I can remark no advantage over the white cotton flannel if the *heavier long fleece* variety be chosen. Certainly there is a great difference in flannel, and I have found the common "unbleached" to be more advantageous than some of the so-called first quality sorts. "Swansdown" is a name by which this textile will be more readily recognized in Great Britain. We in the United States best know it under the name of Canton (or perhaps cotton) flannel, the white, of course, being chosen.

The modified — and decidedly improved — Blanchard brush (or spreader) as I use it in my own work is portrayed in Figs. 1 and 2. It fills the bill.

Where one cannot command a discarded cut film — and the other kind is too thin — a piece of celluloid of the right sort may be had of some dealer in artist's materials or of some photographic house selling supplies for the working of the carbon process. Clear or opaque, it matters not which. Needless to remark, a discarded film should be cleaned of silver emulsion.

Coating the Paper

No doubt each home sensitizer has his or her own peculiar method of coating, the simplest being to spread a newspaper upon an inclined board and over that the sheet to be treated. The paper is then held in position with the spread fingers and thumb of the left hand, while the "spreader" is wielded by the right. The slight inclination of the board permits the liquid to run downwards, when a small pool of it is poured out upon the upper part of the sheet. At this juncture, the brush being brought into action, all portions of the sheet are favored, each having its allotment. The last movements should consist of long, never hesitating strokes, beginning at the top of the sheet and



THE CLOSED DOOR
W. & G. PARRISH, NEW YORK
Sixth American Salon

finishing at the bottom. The idea should be to as quickly as possible wet every portion before any other is dry.

In " Platinotype, Its Preparation and Manipulation," by Captain W. De W. Abney and Lyonel Clark, there is given a sketch of an improved mode of coating. I have used something similar myself. Thus I have a sheet of heavy glass made to incline a little, while the paper is held at the two upper corners by varnished wooden clips. In Fig. 3 this arrangement, as suggested in the book, is shown. The idea is to clip the top of the sheet of paper laid out on a piece of glass by a wooden or glass toggle clip. Such a clip is instantly constructed by the aid of a rubber band. The glass clip is of course made the full width of the paper to be coated, and therefore holds the whole of the upper end of the sheet firmly. The left hand is then used to hold the bottom of the sheet extended, whilst the right hand does the coating.

Drying the Paper

The drying of the paper is a matter of great importance because we must in a measure keep the image upon the surface. Drying is therefore divided into two operations; thus the sensitizing solution upon the surface is allowed to dry *spontaneously* up to a certain point, that is, to that point where it has in every portion ceased to glisten or show signs of wetness. Then, and only then, is it completed in its drying by the agency of artificial heat; the heat from a furnace as supplied through a register, for example. Drying, while a very simple matter, demands particular care; for if we hasten it along with the heat of a fire before the sheet has been allowed to surface dry spontaneously, it will print unevenly in the frame; that is, there will be patches printing faster than the rest. This applies to all manner of iron prints, including platinotype and variants.

Printing

Printing should be in the sun. Take from the frame before the half-tones are tinted, the image otherwise being quite discernible. It is an image that may quite print out if we so desire; but in that case it would be *over done*, and be quite buried when other operations essential to the process were completed. Only experience can determine how far to carry the printing, for the rough paper absorbs a greater quantity of sensitizer, hence the printing must not be carried quite so far, for the reason that the washing, while eliminating the unreduced,—and at this stage of the game superfluous salts, — at the same time develops the image to full vigor and (in point of fact) beyond.

The Brown Print

Take from the frame before half-tones are touched, or at all events visible. Hold under the tap, or immerse in water for about a minute. Then fix for from three to five minutes in the following bath: —

Water	6 ounces
Common salt	12 grains
Hypo	12 grains

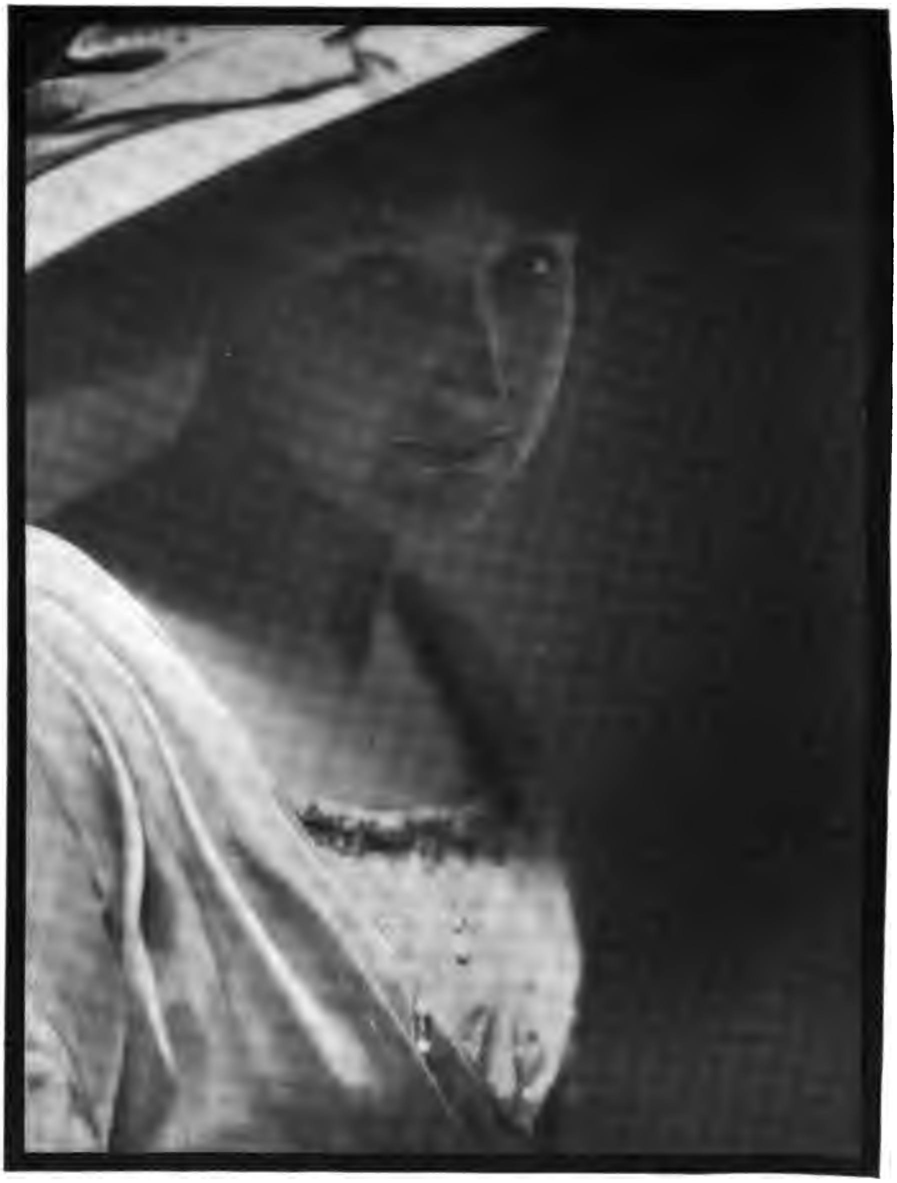
When fixed, wash for half an hour. Measure the hypo and salt with a wooden mustard spoon, three of which may be bought, — assorted sizes, — for five cents, providing there is a "5 and 10 cents" establishment within the zone you live in.

The Green Print

Take from the frame and wash as for the brown, then immerse in the following solution: —

Water	6 ounces
Red prussiate	6 grains
Nitric acid	6 to 12 drops

The shadows will gradually change from brown to green, though sometimes it is just as well to stop the action while the shadows are still in the region of the browns. The dried print will then



PORTRAIT
F. J. BRUGUIÈRE, SAN FRANCISCO
Sixth American Salon

have green half-tones and brownish green shadows,— a very artistic effect to my way of thinking. Experience will be necessary in order to determine just how far to carry the toning action so as to obtain the various results, for prints dry out so much different from what one would imagine from viewing them in wash water; thus a green may dry blue.

The less nitric acid, the slower the action of toning, and hence the better the control over color. As a rule one drop to the ounce is advisable.

When the desired point has been reached, rinse the print and immerse for some ten seconds in water, 6 ounces; hypo, 6 grains (a mustard spoonful). This is to clear the whites, which otherwise would have a yellow stain. Over-long in hypo may weaken the image, and where a print is of the delicate order, just a dip in the hypo will suffice.

A variety of colors running all the way from russet to a sort of olive are obtainable according as we take from the toning bath at one period or another. Short toning results in the darker tones, longer toning the lighter.

Some of these effects are such as would appeal to the pictorialist, though the average worker would flout them.

The Black Print

For a black print of course a white ground would be advisable, though there is no reason why the buff paper cannot be used if desired.

Coat with *salting* solution, and when dry, print until a well-defined though faint image shows.

Make up the following developer: —

Water	2 ounces
Silver nitrate	100 grains
Citric acid	20 grains
Oxalic acid	16 grains

When all dissolved, filter or decant. This makes a stock solution. To develop, take of it two drams to every ounce of water used.

Print turns black immediately it is immersed. Immerse face down, then turn over and break bubbles. Rinse, then fix for five minutes in water, 6 ounces; hypo, 10 grains. Wash for half an hour.

If image is not strong enough, make developer stronger. On the other hand, weaken if prints demand it.

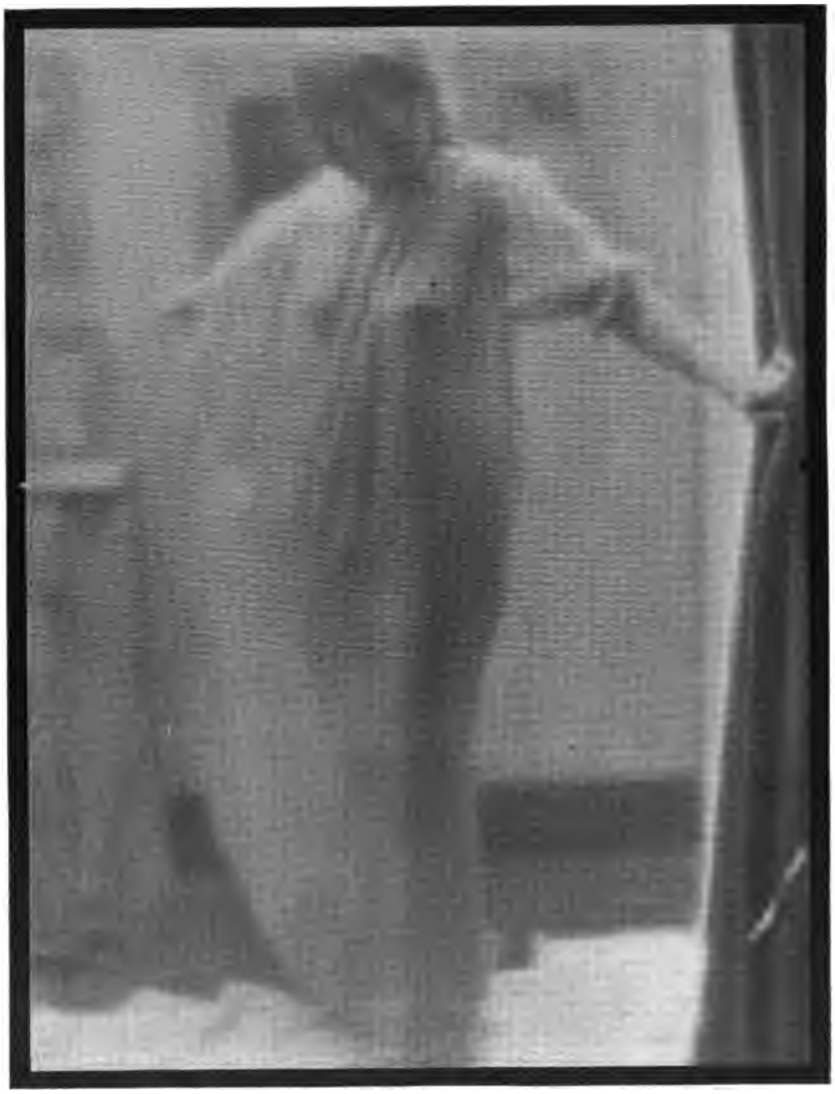
The Blue-print

For a blue-print treat precisely as for a green, and tone until the shadows are still green, though balance of image is blue. Rinse in water, then clear in hypo, finishing by a half hour's wash.

When dry, the general effect will be blue. Additional contrast may be had by adding more bichromate to the salting solution. Try 5, 10, or 20 drops, as occasion demands.

The Sepia Print

A beautiful color of the sepia order is obtainable by bleaching an ordinary brown print that has been fixed in the customary manner. The effect produced on a print made on Strathmore paper is very artistic, though it matters not what the paper, this marks a great improvement, and is well worth the additional trouble. To be successful, however, requires that the print should be a trifle over-exposed, as there is apt to be some loss in vigor. A print, therefore, that is found on drying to be over-dark may be made into a very acceptable picture by this mode of treatment. To my mind there is a refinement in prints treated by this formula, — for which, by the way, we are indebted to Mr. A. J. Jarman, a sometime contributor to this magazine.



UNDER THE STUDIO LIGHT
H. E. STOUT, NEW YORK
Sixth American Salon

Make up the following solution: —

Hot water	15 ounces
Bromide of potassium	60 grains
Bichloride of mercury	60 grains

When cold it is ready for use and may be used repeatedly.

Bleach the print in this solution, the image entirely vanishing in the operation. Wash for, say, ten or fifteen minutes, then redevelop in water, 7 ounces; hypo, 1 ounce.

Leave in the latter for five minutes, then wash and dry as usual.

On the buff ledger paper the effect is very fine, — a dark brown of the nature of sepia as seen in wash drawings.

There are other fine brown effects possible, but to obtain them necessitates some changes in the salting solution.

RED TONES

Where prints in brown are on drying discovered to be over-dark they need not be thrown away. Satisfactory artistic results may be had with such by a resort to uranium toning. As this operation has a slightly reducing action in the present instance, over-exposed prints are just right for treatment. The whites are cleared and at the same time the detail in the shadows is accentuated in a marked degree.

Black prints when a trifle over-printed need not be thrown away. Tone them in the uranium solution and get desirable and beautiful colors all the way from purple to red chalk. When prints, therefore, are discovered on drying to be too dark, they should be put aside for the uranium treatment with the certainty that improvement, rather than loss, will result.

URANIUM TONING BATH

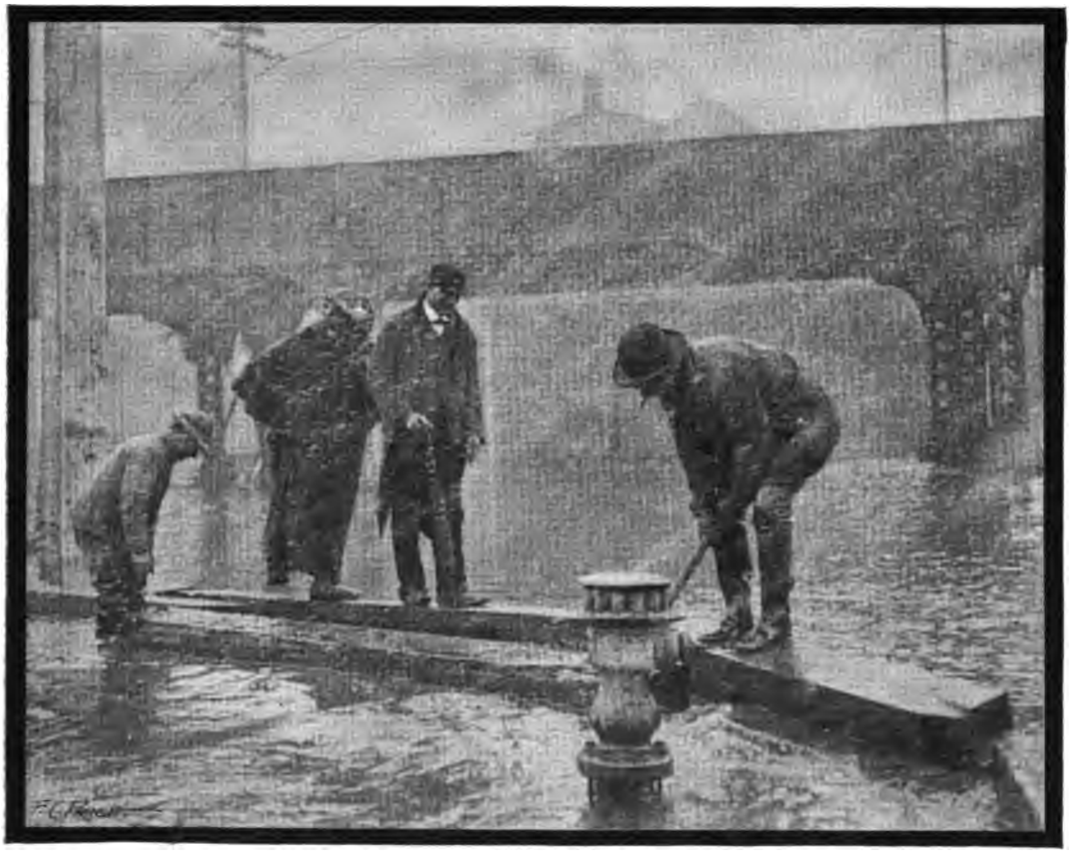
Water	6 ounces
Uranium nitrate	9 grains
Potassium ferricyanide	9 grains
Glacial acetic acid	1 dram

Prints, to tone nicely, must have been fixed, washed, and dried previously in regular fashion, otherwise, for some reason, results are apt to be less satisfactory.

Immerse in the bath, swabbing the face of the print with a wad of absorbent cotton, thus breaking air-bubbles, which, when present, cause green spots. When desired tone has been reached, place in a tray of clear water acidified with acetic acid, — quantity not material, a few drops to the ounce. This will arrest toning action. Complete by swabbing back and front of print with a wad of cotton to dislodge all sediment of ferricyanide, which, unless this is done, remains in the meshes of the paper. No; even prolonged washing fails to remove it. Do not rely on the washing alone.

In this connection let me remark that all prints, it matters not by what process produced, should have the faces swabbed with a wad of wet absorbent cotton when taken from the wash water. Tap water in the city of Boston is very pure compared with most American municipalities, but it is astonishing the amount of dirt of one kind and another that can be *wiped* from the surface of prints when washing in such water has been effected. In the interest of "pure and undefiled" high lights, if for nothing else, be sure to swab your prints before drying.

An alternative plan is to dry the prints as usual (this applies to the home sensitized), then swab them with Higgins' Photo Mounter thinned to the consistency of cream. With a wad of cotton swab the face of the print, and when the surface dries it will have a much improved appearance, the shadows having much more depth. Also, if you examine the wad of cotton, you will observe a lot of foreign matter removed from a place where least desired.



DURING THE STORM F. C. PRICE, COLUMBUS

Sixth American Salon

Reverting to the subject of sizing the surface of the paper, there are a number of different modes of doing it. We are generally advised to float the sheets, and no doubt in some hands that method works well enough, but as for myself, I have discarded it. Another worker puts on the size with a sponge, afterwards wiping with another sponge wrung out in warm water. This ought to work out all right, but my own present method I like better. It is as follows: —

I take some bristol board or heavy flexible white paper five or six inches wide and any reasonable length. This is folded twice or thrice, leaving a bulbous side, over which is stretched a few folds of cheese-cloth, a linen handkerchief, or a piece of white cotton flannel. The entire affair is similar to the improved Blanchard brush with which sensitizing is done, but bulkier. The loose ends may be held together with a wood or metal clip, pinned together, or fastened in any manner that may suggest, so that the whole is firm, secure, and the bulbous end be level, free from creases, and smooth.

To apply the size, a tablespoonful is poured upon the surface of the sheet of paper (which should be spread upon a few thicknesses of newspaper), then evenly spread with the pad. The latter, though flexible, operates to push all superfluous solution before it, thus insuring an even coating, free from bubbles and clogs of the starch.

Once arrowroot or gelatine size has thus been spread, the sheets, back to back (pinned together by a corner of each), may be suspended over a line strung across a warm room. On the floor underneath should be placed newspapers or wrapping paper to catch the drip from the lower corners

IN DOCK EDW. H. SMITH, PHILADELPHIA

Sixth American Salon

of the sheets. Suspended thus, all superfluous solution gravitates to the corners, and any appreciable quantity that gathers there can be easily removed by running the finger across it.

Should more than one coat of size be deemed necessary, it is well to hang by an opposite corner on the second application; and upon a third or fourth, still others. Thus will the solution dry in an even manner.

I have gone into these details pretty thoroughly at this time because they are applicable to all home sensitizing operation and not to the formula under exploitation alone. Furthermore, no matter how many times such details are gone into, or have been treated of in previous writings, there are always a sufficient number to whom they are entirely new.

Never is a joke too old to fail of a laugh or two at a vaudeville entertainment. To some it is new, and in like manner much that to old-time photographers is considered trite in connection with photographic practice, to an innumerable host breaking into the ranks is novel.

A year ago, perhaps, we went into all the intricacies of applying size to paper, but a whole battalion of readers have come along meanwhile who never heard of the subject before. Even after we consider we have gone into every possible phase of a subject, after we have made allowance for every contingency, we are accused, likely as not, of taking too much for granted. In other words, that we did not explain to that degree essential to a correct understanding of the matter in hand. Maybe so.

The sizing of paper stock in connection with sensitizing is more than a "twice-told tale." Time and time again it has been detailed by myself and others, and in the present instance I considered

A STORMY DAY ON THE ROAD L. C. OGREN, JAMESTOWN
Sixth American Salon

I might omit it. But on second consideration I decided it would be better to go over it again for the many who perhaps have got beyond the fast and furious period of indiscriminate snapping and who are pausing to take a survey of the field of serious performance.

In the present process we have to reckon with the phenomenon of the continuing action of light. Take a half done print from the frame, keep it in the dark all night, and in the morning the image will have printed out. It therefore follows that once printing is done, other operations should soon follow.

There is another reason why there should be small delay in completing operations, and that is in the fact of sensitizing surface deteriorating once it has been exposed to air, which leads to the further proposition that only such paper as can be used within a few hours should be coated. One may sensitize at night and print next day, which is a very good plan, though coating may be done at any time in subdued daylight.

Some one may inquire why the two solutions cannot be combined and a single job made of the sensitizing. Well, on a good, rather rough, sized paper we may combine solutions and obtain

THE CUP F. A. MORGAN, CHICAGO

Sixth American Salon

satisfactory results; but for brilliant prints, as a rule, it is best to first salt, and then on top of that apply the silver solution. Where solutions are combined, let it be done just before coating. In a separate bottle pour equal portions of solutions, shaking thoroughly before using.

Dissolve the chemicals in a wide-mouthed amber colored bottle, adding each in due order as prescribed. Place the salting solution in a dark place to soak for at least twelve hours, — twenty-four will be better. Filter, to get rid of precipitate.

Ferric oxalate is sometimes difficult to obtain, and when bought is, as often as not, spoiled, inert, and of a consequence worthless, which is not at all to the discredit of the seller, who may be an innocent party to the transaction. It should come in shining greenish brown scales, each scale separate from its mate, and when pale green, without lustre, powdery, and sticking to the sides of the bottle, it is good for nothing as regards modes of iron printing. Ferric oxalate cannot be prepared in a stable form so as to have a constant composition. To test, mix a small quantity of ferric oxalate in water, and to solution add a small quantity of ferricyanide of potassium (red prussiate). If *ferrous* salt is present, the precipitate will be blue. When only present in slight degree, red prussiate will restore it again. The ferrous salt degrades the image.

Green ammonia iron citrate is sometimes not to be easily obtained, in which case the common brown variety will answer, though the green is better, resulting in a clear liquid, which is not the case when the brown is used.

Not much need be said of the illustrations other than to remark that the two wooden strips that bind the improved Blanchard brush are glued to a piece of canvas, leather, or other suitable flexible material. With the cotton flannel in place, all one has to do to hold it securely in place is to clasp the whole with the canvas, a strip of wood then coming on either side, a stout band of rubber being then sprung around the wood.

AUBREY HARRIS

A PEN-PORTRAIT WRITTEN FOR "AMERICAN PHOTOGRAPHY"

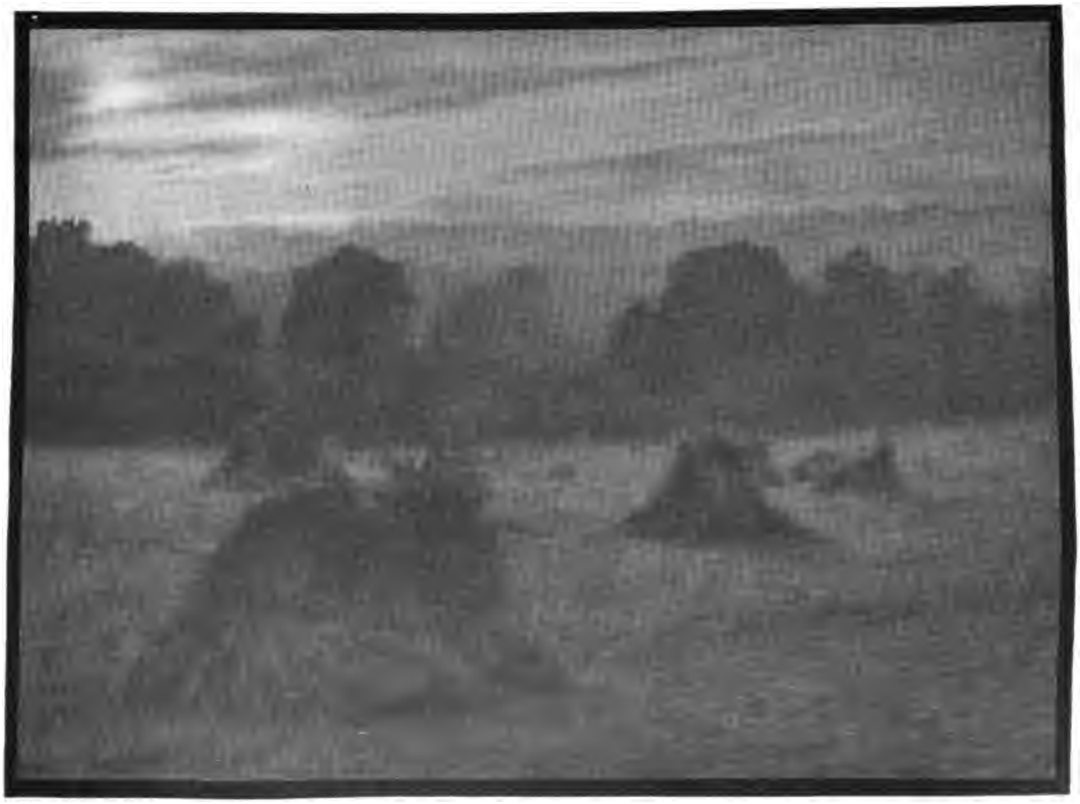
CHARLES E. DAWSON

LIKE Elwin Neame and E. O. Hoppé, Aubrey Harris, my present "subject," is still in the unfixed and tentative stage, so far as his work is concerned. His chief interest for us lies less in ripe achievement than in a wide range of future possibilities.

Unlike Neame and Hoppé, however, he has not yet entered the ranks of the profession, and it is doubtful if he will ever make the high adventure of doing so, for he is a member of a distinguished profession, and bread-and-butter considerations are not likely to be mingled with, or impede, his convictions on matters of photographic art.

He has a full measure of the artistic temperament in his mental make-up, happily blended with a strong vein of common sense. His early art studies were curtailed when he became a student for the professional career he follows, and after obtaining his degree, he found it was too late for him to return to brush and pencil, and turned instead to the camera as an instrument for pictorial expression.

Aubrey Harris's reputation has not been won in a day, he has not rushed meteor-like into the photographic firmament. His has been the success of the steady plodder. Nothing is left to chance or spontaneous inspiration. Everything he does is the result of a conscious reasoning process; whether it be a city scene or a pastoral, he makes elaborate studies beforehand of what



THE LAST GLEAM AUBREY HARRIS, LONDON

THE WISHING POOL AUBREY HARRIS, LONDON

he intends to achieve, and these studies often involve the expenditure of a considerable number of plates and films, and many hours of preliminary work.

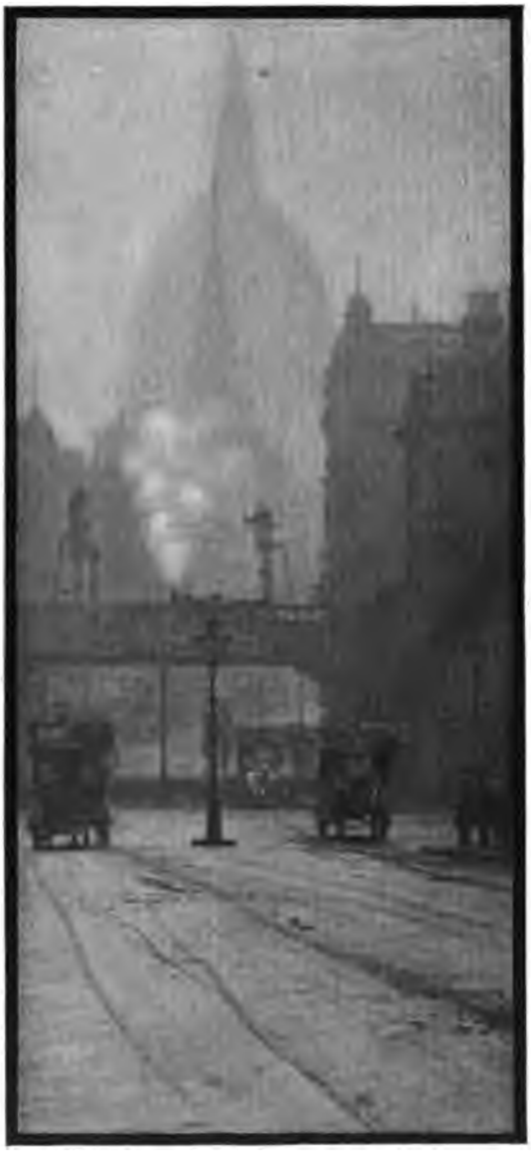
When collecting the mental material for a picture, he reads up his subject, goes to the picture galleries that contain works likely to be helpful, and when possible, he visits the view-point from where his picture will be made as carefully as an architect visits the site for a building, or a dramatist studies the local color for a play.

He is not a follower of the "pure photography" ideal, for, as he says, the maker of the ***straight*** picture often owes not a little to happy chance, and the manipulated picture must, after all, be the more individual. He favors the reflex type of camera, and works mostly with ¼ or ½ plates, from which he makes enlarged negatives up to 15 x 12. Carbon is his usual printing medium.

London is so complex a city, it embraces so many distinct local centers and parishes, each district typical of certain men, moods, and manners, and unconsciously bearing the impress of various individualities, that it is often interesting to deduce a man's character and temperament from the *locale* he elects to live in.

Aubrey Harris, for instance, has made his home in Walpole Street, Chelsea, at the corner of that Kings Road, once the "Merry Monarch's" own private drive, which leads to Sandford Manor, where Nell Gwynne used to live.

Opposite Harris's house is the old Royal Military Hospital, familiar to all the world through Herkomer's great pictures, "The Last Muster" and "Chelsea Pensioners." The origin of the Hospital is attributed to one of the generous impulses of Nell Gwynne, and it stands to-day a monument to the taste and style of the architect, Christopher Wren.



LUDGATE CIRCUS
AUBREY HARRIS, LONDON

THE DARNING LESSON — AUBREY HARRIS, LONDON

Within a few steps of Harris's well-equipped dark room are houses and shops that teem with memories of Chelsea's old-time glories, from the days when the Georges and their queens made the "Old Original Chelsea Bun-House" fashionable by driving there in person to fetch their buns, to the times when Whistler and Oscar Wilde exchanged their *jeux de mots*, and incidentally produced pictures and poems that have so greatly influenced modern art.

Just to mention a few of those who took their walks around Walpole Street, and down to the Thames, will give some idea of the glamour and traditions, of the air that surrounds the threshold of Harris's home. There was human old Pepys, Sir Thomas More, who walked with Erasmus and King Henry in his "fair garden," Carlyle, Steele, Smollett, Leigh Hunt, Rossetti, Turner, and George Meredith,— truly a band of masters.

For his country retreat, Aubrey Harris has an old Kentish farmstead midway between London and the sea. There, with a few willing models, appropriately garbed in costumes peculiar to the village in bygone days, he works most week-ends, lavishing hours of thought and experiment, tramping muddy lanes, or patiently waiting for the right effects and composition. His love seems equally divided between town and country, and he seeks to realize the spirit — the human spirit — of each.

His view of St. Paul's Cathedral and Ludgate Hill is one of the best pictures of this most prominent feature of the city I have seen. There is no need to dwell upon the difficulties, the disappointments, the tact, and energy behind the production of such a picture.

AUBREY HARRIS
FURLEY LEWIS, LONDON

Many hundreds of cameras are annually leveled at the venerable dome of St. Paul's, and yet its majesty and mystery elude almost all of them. Not only does the massive pile symbolize the city in its more human aspects, but it maintains a strong dominant character all its own. As St. Mark's is to Venice, so is St. Paul's to London, and if you haven't stood in the shadow of the latter and noted its fine proportions, then you haven't properly "done" London. The cathedral is so vast, so great, that almost like a hill it changes with the atmospheric effects, varying its tones of blue-gray, indigo, purple, or lilac, with every movement of clouds and sky. The late John Davidson wrote:—

"See! how shadowy,
Of some occult magician's rearing,
Or swung in space of heaven's grace,
Dissolving, dimly reappearing,
Afloat upon ethereal tides,
St. Paul's above the city rides."

From the tumult of Fleet Street, with its ganglions of telegraphic wires and news centers, the rush and roar of its motor-bus traffic, the smoke-begrimed mass rises with dramatic aloofness, its blue-gray dome towering almost amid the clouds.

The cathedral stands proudly upon the top of Ludgate Hill. It is more than two centuries since it was finished, after taking thirty-five years to build, and every year it seems to become more noble, and certainly better appreciated than during the lifetime of its ill-rewarded architect.

The edifice is not merely mellowing with age, but it is blackening too, the dome, golden ball, and lantern emerging at intervals in silver and gold. "There cannot," wrote Hawthorne, "be anything else in its way so good in the world, as just this effect of St. Paul's in the very heart and densest tumult of London."

Crossing the foot of Ludgate Hill is one of the most picturesque of railways, the iron "Bridge of Steam" that ever and anon emits a puff of smoke and a red spark into the general "fermenting vat," the engulfing vortex of commercial life and journalistic energy below. For this is the roaring Niagara of Newspaperdom, the loom of time that never ceases. Kings and even thrones may pass away, but the busy phoenix-like heart of London, like the vestal's fire, must burn ceaselessly, ever fed, ever renewed, ever immortal, ever young. I hope the reader will forgive me for spending so much of his time with St. Paul's, but if ever he comes to London, he will realize how fine a subject it is, and how well Aubrey Harris has rendered it. I have lived and worked under the shadow of the great dome for years, and grown to know it in all its moods and aspects, in all seasons and at all times, and can testify to the fidelity, not to say spirituality, of Harris's picture.

Although the representatives of the sordid side of commerce, the "get-rich-quick" merchants, have seen fit to plaster over the buildings around Ludgate Hill with gigantic and awkward signboards, sky signs, and bills blazoning the names of various cereals, whiskies, meat extracts, etc., Harris has succeeded by eliminating them from his print, to show us the intrinsic character of the subject.

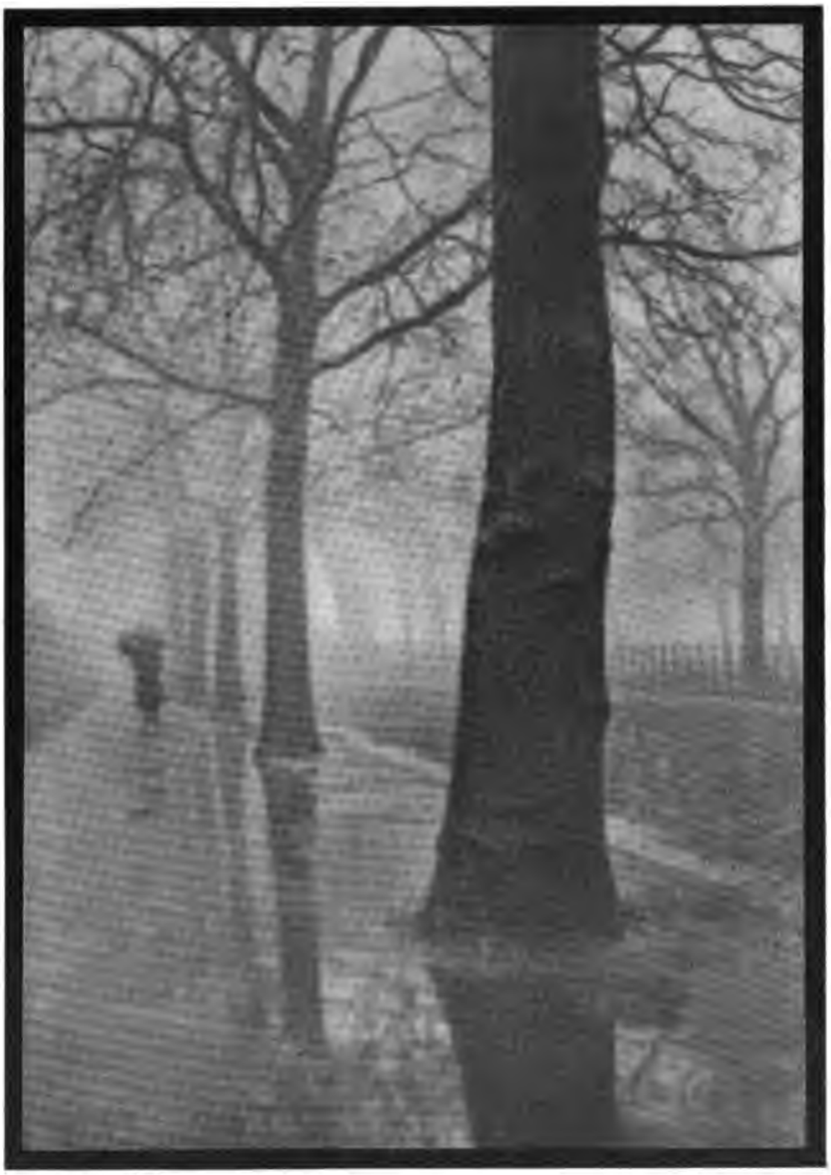
Aubrey Harris has not yet reached the limit of his capacities, and hence his work, which many have been watching with interest since his first contribution to the Royal Photographic Society some four years ago, has the special quality of promise; it may develop at any moment into a personal style and set one of those fashions in treatment that keep photography swinging along into the realms of Art and Beauty.

Some day Harris may cast aside all the science and reasoning that he has so laboriously acquired, and which he at present exploits somewhat self-consciously, and in place of it, substitute that illusive gift,— the faculty of instinctively doing the right thing, in the right way, at the right time, without which works of art possessing "the ultimate quality" are rarely achieved. One of the defects of Harris's qualities is the affected sentimentality which often characterizes the work of the artist whose methods and training are almost entirely mental and technical.

The late Lord Leighton, one of the most picturesque and popular presidents of the Royal Academy, had similar methods, and alas! his work, which a decade ago was almost priceless, drops in value every time a picture of his comes into the market.

As Kipling wrote, however, "there are nine and forty ways, of writing tribal lays, and every single one of them is right," so also there are many ways of picture-making, as many almost as the men who would be artists; and fortunately, every single one of them is right from some one's point of view.

A BUTTERFLY BOLD AUBREY HARRIS, LONDON



DREAR DECEMBER
AUBREY HARRIS, LONDON

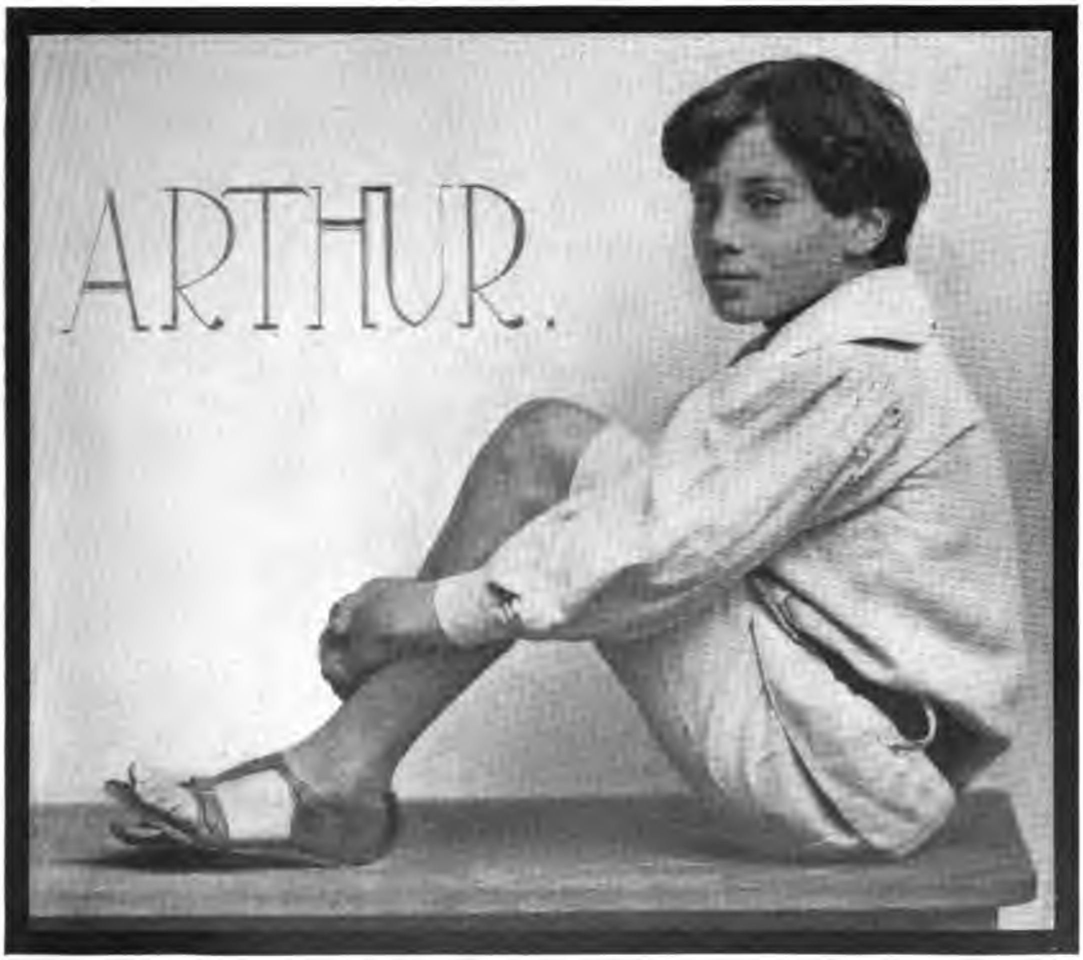
REFLECTIONS ON TRIANGULAR FIGURE COMPOSITION

ARTHUR HAMMOND

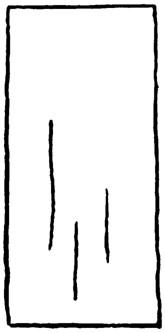
WE are told in treatises and monographs on the subject of figure composition to try and arrange our subject in some definite geometrical pattern or shape, oval, circular, triangular, and so on. We are given arrangements of lines, showing how we may suggest emotions by the distribution of the leading lines in the subject, and we are shown by means of reproductions of famous pictures how these principles were known to and practiced by the old masters.

And this is the best that can be done to enable those who have no knowledge of the subject to acquire some idea of what it all means. It is at best an imperfect and inadequate method, owing to the fact that composition is so much a matter of personal feeling that it can hardly be said to have any hard-and-fast rules. Still, it is perhaps just as well to be told that certain facts are rules of composition, so that we may know what we are doing when we break these rules.

Much may be learned by the study and analysis of the methods of the old masters. It is very

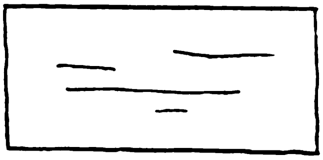


ARTHUR (FIGURE 1) ARTHUR HAMMOND, BOSTON



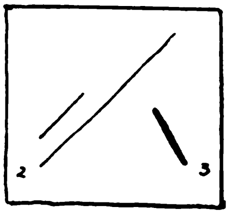
A

UPRIGHT LINES
ENERGY AND
STRENGTH



B

HORIZONTAL LINES
REPOSE AND
RESTFULNESS



C

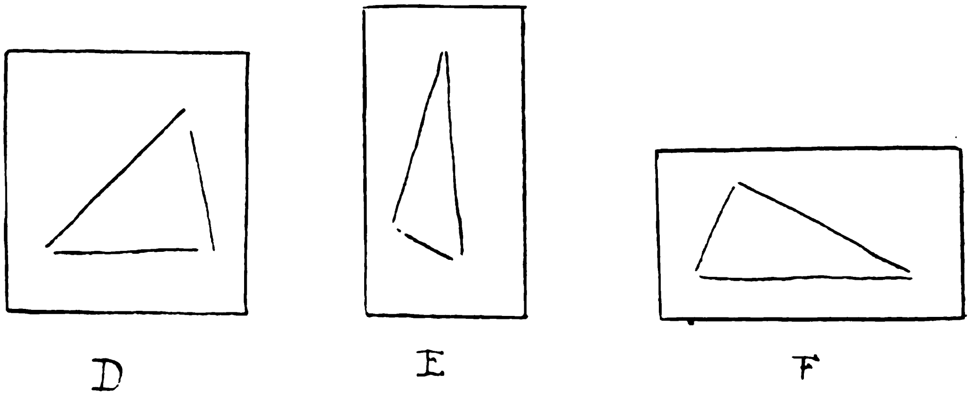
OBLIQUE LINES
BALANCED BY
THE LINE NO. 3

helpful to trace out the leading lines of well-known pictures, to note the methods of arrangement of the subject, the distribution of tones, and so on, and perhaps, for a photographer, reproductions in monochrome are even better than the pictures themselves, because in the reproductions our attention is not distracted by the color scheme.

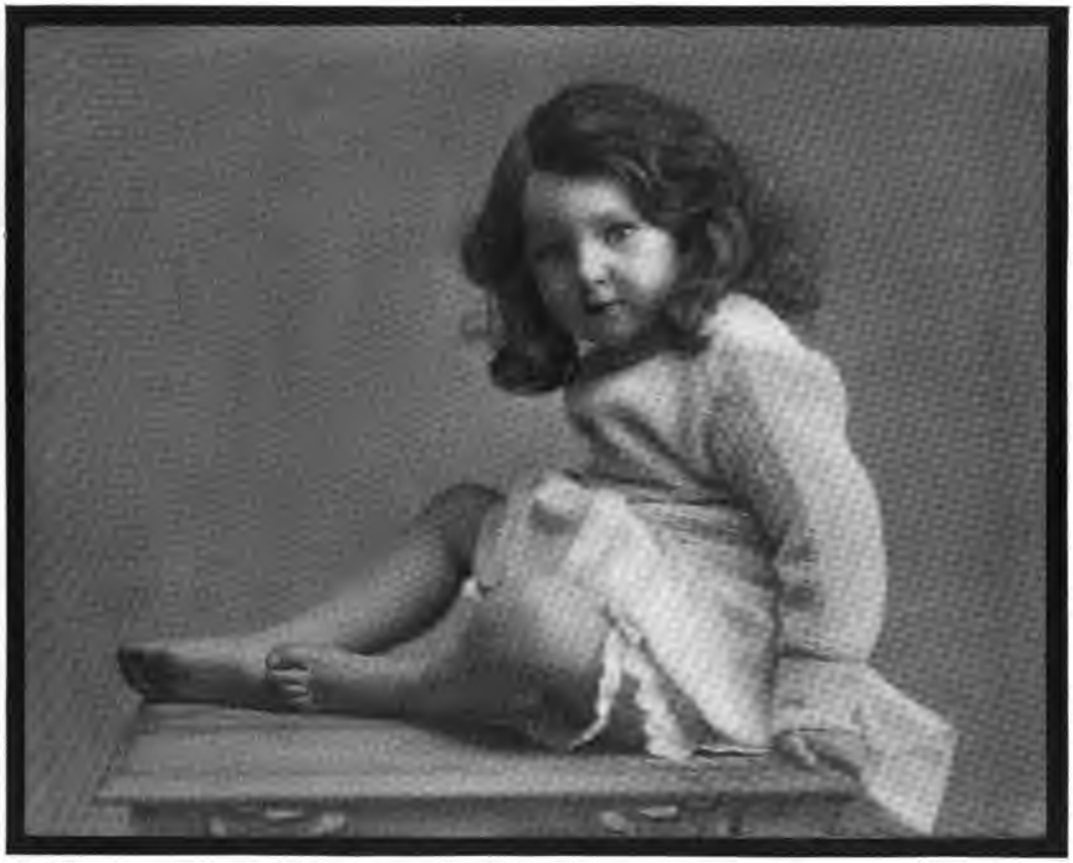
Although the whole subject of composition is largely a matter of personal feeling and good taste, there are certain facts regarding lines, a certain grammar of the art, which it is necessary to acquire. There is nothing difficult about this, they are merely elementary facts that every one knows almost instinctively.

With regard to lines, it may be broadly stated that curved lines, as a rule, are more beautiful than straight lines, upright lines suggest energy and action, long horizontal lines convey a feeling of repose and calm restfulness, oblique lines, unless balanced by other lines sloping in an opposite direction, give a suggestion of instability, and when we have oblique lines that balance each other we get at once a triangular composition. An arrangement like diagrams D, E, and F (in which the longest side of the triangle is the base) gives at once a satisfying suggestion of stability and firmness, this feeling being conveyed merely by the lines themselves quite apart from the subject of the picture.

The idea of arranging the subject into definite shapes, such, for instance, as the triangular, is not so much for the sake of the triangle itself, as for the sake of filling the picture space satisfactorily.



EXAMPLES OF TRIANGULAR COMPOSITION



CHILD STUDY (FIGURE 2) ARTHUR HAMMOND, BOSTON

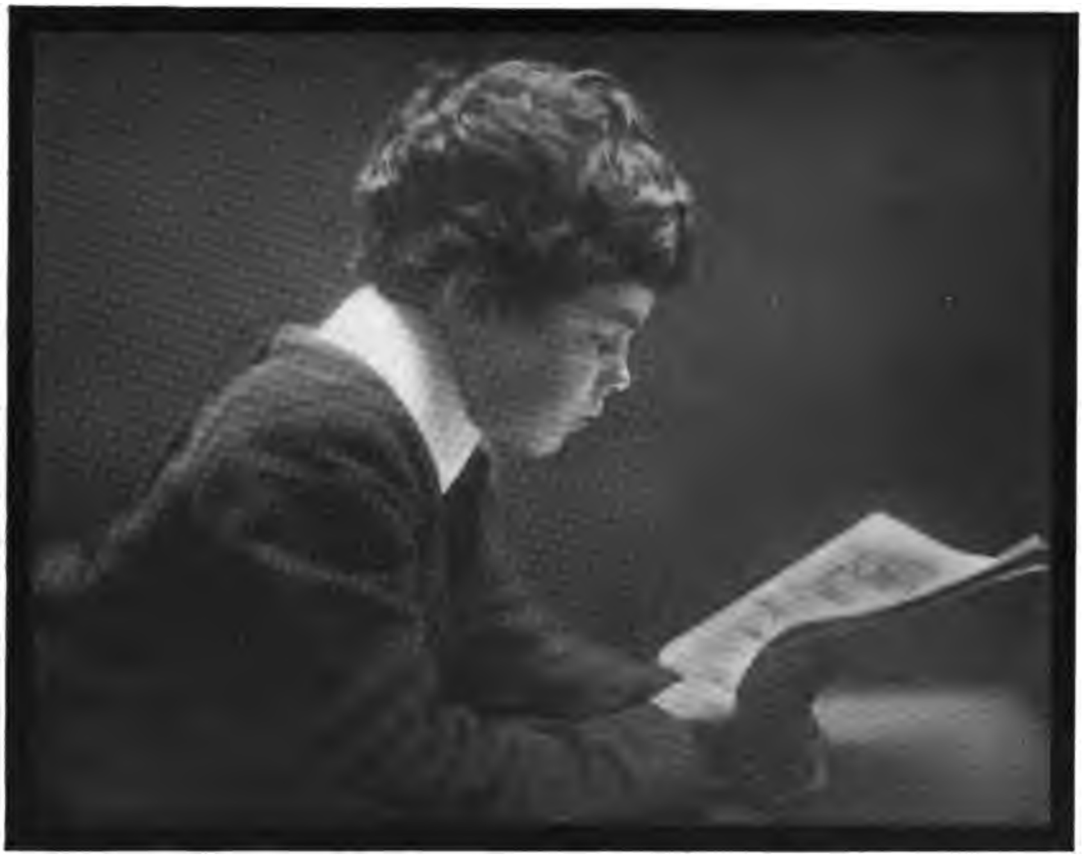
That is the main thing, to fill the picture space so that the picture, when shut in by the lines of the frame or mount, looks complete in itself, does not encroach beyond the frame, or leave the space looking empty, but forms, as it were, a pleasing pattern, quite irrespective of the subject of the picture.

The triangle fulfills these conditions admirably, and, in addition to this, offers almost endless possibilities of variation. We get also a certain amount of repetition; the sides of the main triangle forming other triangles with the edges or boundary lines of the picture. It will also be found that, in addition to being so eminently satisfactory, the triangular form is one of the easiest in which to arrange the subject in a figure composition, or rather, to let the subject arrange itself.

In the three illustrations here reproduced, three different varieties of triangular arrangement are seen. The most triangular of all is perhaps the small boy sitting on the table, Fig. 1. There are angles and triangles all over the place, which is perhaps not entirely out of keeping with the awkward age of the subject. There is, however, a feeling of solidity and firmness about it, and the picture space is fairly satisfactorily filled, except for a slight emptiness in the left-hand upper corner, which seemed to want something in it, and that is why the boy's name is put there.

A rather similar scheme of arrangement is seen in Fig. 2, though there are not so many hard angles here, the hardness being softened by the curves of the child's dress.

I would ask the reader to notice in these two examples the position of the head in the picture.

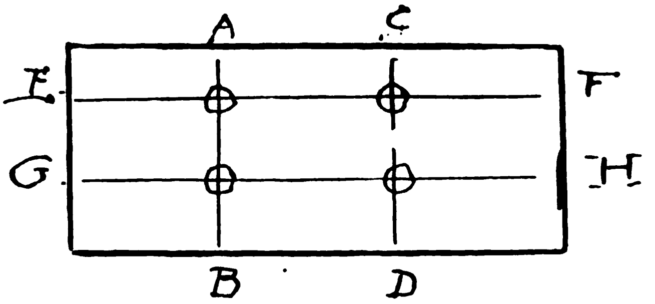


READING (FIGURE 3) ARTHUR HAMMOND, BOSTON

This, again, is in accordance with well-known and oft-repeated rules. We are told that the weakest place in a picture is the center, and that the strongest position for the chief object of interest is a point one third of the picture space away from one side or the other. Thus, the points of intersection of the lines A B, C D, E F, and G H are strong points. These two prints, Figs. 1 and 2, are more or less in accordance with this rule, but in the third example the rule is entirely neglected and a very regular isosceles triangle is seen; the head is practically central. This may, however, again be regarded as being in keeping with the subject, the studious aspect of the sitter suggesting youthful struggles with the *pons asinorum.*

A triangular scheme of composition can also be obtained quite easily without showing as much of the figure as is shown in these examples. In Figs. 1 and 2 it will be noticed that the whole figure is included, feet and all; in Fig. 3 only half; but even when only the head and shoulders are shown, it is often possible, by arranging the arms or sometimes by the use of accessories, to widen out the lower part of the picture to form the base of a triangle of which the head is the apex and thus secure that suggestion of solidity and strength that is always conveyed by this form of composition. When the arms and hands are included, the possibilities of variation are enormously increased. To my mind a portrait always seems more or less incomplete unless one or both hands are shown, there is almost as much character in the hands as in the face. But this is a wide subject and demands an article to itself.

COUP DE SOLEIL
H. Y. SUMMONS, CAMBERLEY, ENGLAND
Second Prize, Monthly Competition



POINTS OF INTERSECTION OF THESE LINES (MARKED WITH CIRCLES) ARE STRONG POINTS, AND ARE THE BEST POSITION FOR OBJECT OF INTEREST.

The student will not do wrong to follow the elementary rules given here, at any rate in his early days until he has educated himself sufficiently to form ideas of his own and to know the difference between good and bad composition; but he will find later on that such rules may often be modified or even disregarded altogether, according to the nature of the subject. There can be nothing definite; every different picture requires a different arrangement and the worker can only be guided by his own good taste and by an instinctive feeling for what seems to him to be right and suitable.

This taste and feeling can and should be cultivated by a careful study and analysis of good pictures by recognized masters,— either paintings or photographs,— and no opportunity for studying and analyzing such pictures should be missed, whenever it presents itself.

SOME UNTAKEN PHOTOGRAPHS

W. L. F. WASTELL

I HAD occasion recently to pay a flying visit to Norwich — a town I had never seen. As I had been credibly informed long ago in the nursery that on the historic occasion when the man in the moon came tumbling down the first inquiry he made was as to the best way to Norwich, I concluded that there must be something preeminently interesting about the city, and decided to take a hand camera with me. I accordingly loaded it with film, and took a reserve of spools and plates to meet demands, should fortune favor me. Not one of those films or plates was exposed. It was no fault of Norwich; but I had calculated without the weather.

As far as Cambridge the country was familiar to me; but as the tower of St. John's dropped lower and lower in the distance I began to watch the panorama that glided past the carriage window. It is my habit in such circumstances to take photographs all the way — in my mind. What fine subjects one sees, or fancies one sees, at such a time, to be sure. Leave the train, and endeavor to run some of them to earth, and they are as elusive as the foot of the rainbow towards which optimistic children run to find the pot of buried gold. All the same, it is very pleasant to watch the different bits and subjects as they fly past and develop into ever-changing arrangements with the rapidity of a kaleidoscope.

The landscape generally was flat, or at the most gently undulating, and overtopped with a blue sky with massy gleaming clouds. Ever and again the winding course of a stream or the converging furrows of the fields led up to a strong clump of trees or a dark mill — a subject ready-made for the painter, if not for the photographer. Somber firs and bright silver birches intermingled; here in compact groups, there in long rows or massing into respectable coppices. The coniferous trees had sturdily retained their foliage through the long winter, although they would soon send

ROMAN ARCHES W. H. PHILLIPS, EAST LIVERPOOL

First Prize, Monthly Competition

out new shoots of vivid green in compliment to the climbing sun; while the bare twigs of the deciduous trees were thickening in anticipation of the same genial warmth to come.

Then, field after field of the black fen soil, with its top dressing of clay. Yonder bobs up and down the back of a man delving deep for that same clay; and presently another back of a man clearing a dyke. Both wear white coats. Why should a man burrowing in clay or slime wear white? Surely it is unusual for diggers. The grave-diggers who threw out poor Yorick's skull from Ophelia's preparing grave were, we remember, brown as harvest mice from crown to shoon.

Then, on a little knoll, the gray fane of Ely, the queen of the Fenlands. The surrounding land has changed vastly since the foundations were laid, and since Hereward, in his Camp of Refuge, defied for so long the alien Conqueror from Normandy.

There is no blue sky now, and the gleam of the clouds has vanished. There is one long dark cloud with ragged lower edges; and as I watch it the ragged edges soften, and the distant sky is blotted out with a vast gray smear. A moment or two and the swishing hail and rain lash the window panes with sudden fury, and every rut in the open road brims with water.

Long mile after long mile, East Anglia glides past — field and fen, dyke and wood, with rare farmsteads and still rarer villages; not picturesque in the popular sense, but with a wide, still beauty of its own. Then wider and more numerous streams, thickening dwellings, many church towers, a network of rails; and the train slackens and stops. Norwich.

EVENING SHADOWS IN THE SNOW HARRY D. WILLIAR, BALTIMORE

Third Prize, Monthly Competition

In the afternoon I looked round part of the city. There were brief moments when the camera might have left its case with some justifiable hope, but the market, castle, museum, and cathedral whiled away the hours of the short day, and my first film waited in vain for the brief flash of the lens. Besides, was there not the next morning?

But the next morning brought a blizzard, and the camera resigned itself to repose. I wonder now what I should have taken had the weather been propitious. There was, for example, a certain old church. It would certainly have lacked interest to the ordinary observer, who would not have appreciated its empty surroundings. To me they would not have appeared empty; for I know that on a certain day in the year 1549 there raged around that church a fight most fierce and fell. One Robert Kett, a tanner from Wymondham (which we must remember to pronounce Windham), had raised an army of ill-equipped but furious followers in practical protest against the greed and tyranny of the landowners, some of whom received short shrift at his hands. From the neighboring heath, called Mousehold (which, again, we must call Mussol), he had descended on the city and captured it. He called himself, in the flush of his success, King of Norfolk and Suffolk. But soon the name was a pitiful misnomer, for his body swung aloft in chains hard by the castle. What photographs we could show if we could but record past history. Fancy a picture of the grim castle against a stormy sky, with, by way of appropriate accessory, the bones of poor King Kett swinging

PETER GRETE BACK, DRESDEN - BLASEWITZ

Third Prize, Monthly Competition

aslant in his gibbet as the wind-gusts made his iron cage clang again. An electric light standard is a poor substitute, but withal a less ghastly one.

And what records could have been made with the camera long ago before Kett was born; when the bed of the North Sea, above which the trawlers now drift, was still high and dry, and the mammoth wandered unchecked from the frozen tundras of Siberia to the scarcely less rigorous marshes where now the Norfolk cornfields lie. But that was before we bought our little pocket Kodaks.

Almost before I was aware, the train was whirling me away again from Norwich. The furrowed patterns of the fields were accentuated with white, and the windward side of every tree had an artificial high light of clinging snow. East Anglia was a study in white and gray. Some parts had escaped the snow, but even these had nothing brighter to show than sad greens and pale yellows, save where some stacked rushes had blazed into vivid orange and red. Long mile after long mile again of field and fen, dyke and wood — almost colorless, and entirely sad and depressing. At last, the gloomy streets, blurred lights, gray silhouettes of endless buildings. London.

Well, as I said, I brought back all my plates and films unexposed. They may record other scenes before long, but perhaps, after all, the photographs we do not take are worth more than those we attempt. I know I shall get nothing on those plates to equal that long panorama of East Anglia that sped past the carriage windows, or to match the pictures of the conquests of Robert the tanner, the King who swung in chains on Norwich Castle Hill. — *Photography.*

EDITORIAL COMMENT.

A GREAT OPPORTUNITY

AS every reader of magazines knows, one of the problems which is continually up for solution by every publisher is that of increasing circulation. The possibility of the existence of a magazine to-day is dependent on its attaining a wide circulation, because its advertising patronage depends on this factor. AMERICAN PHOTOGRAPHY enjoys the proud distinction of having the largest circulation of any of the American photographic magazines, but we find among our advertisers a continual cry for more, and we consequently continually bend our best efforts to increase the circulation of our magazine. During the past four years, the period during which the present editor has had charge of the magazine, under its former name of AMERICAN AMATEUR PHOTOGRAPHER and its present one of AMERICAN PHOTOGRAPHY, his insistent effort has been to make each number a little better than the last; and any reader who can look back at the number for February, 1906, and compare it with the present issue, will see an enormous improvement in every way in which the magazine can be bettered. The natural result of this has been that the circulation has grown steadily during all this period.

We are still desirous of increasing the subscription list, however, and are not satisfied with the inevitable normal growth due to the betterment of the magazine. In considering ways and means for making a great growth this year, we discussed the problem of offering our subscribers some valuable premium. It is well known that the general magazines use for circulation getting sets of books which they offer to their readers at greatly reduced prices in connection with subscriptions. We decided that it would be advisable for us, if we used such a method, to offer our readers photographic literature, and in making a careful survey of the field, we have found that in the whole range of photographic literature there existed no such valuable work as the "Complete Self-instructing Library of Practical Photography," which has been advertised and reviewed in our pages during the last year. As our readers know, we spoke in very high terms of this book at the time it first appeared, and in making investigations we discovered that the photographic public had concurred with our estimate by purchasing the entire first edition of two thousand copies within the short space of five months.

Communicating with the publishers of this most useful work, we found that the edition was entirely exhausted and that they proposed to print a new edition. This seemed to be our opportunity, and we therefore made arrangements with them whereby the second edition of this book, consisting of five thousand sets, should be placed wholly at our disposal. We have made arrangements with the publishers whereby this edition will be sold only to readers of AMERICAN PHOTOGRAPHY, and until this edition is sold the publishers will not sell the book themselves to anybody. By thus contracting for the entire edition we are enabled to offer this library to our subscribers at cost, and we are now able to make the announcement that any subscriber to AMERICAN PHOTOGRAPHY will be accorded a reduction of thirty per cent on the published price of the library. Full details of the offer will be found in our advertising pages, to which we respectfully refer those interested.

As to the book itself, we may say that we unqualifiedly recommend the second edition, which has been wholly revised, greatly improved, and brought up to date, as an indispensable and complete work of reference on photography. The photographer will find in its pages the answer to any question which may arise, whether he be professional or amateur, and whatever the department of his work. The book is built out of the experience of the American School of Art and Photography in teaching photography by mail for many years, and solves the difficulties experienced by a hundred thousand photographers in all processes. We hope that every reader of our magazine will write us at once for information as to this price-saving offer and embrace an opportunity such as has never before been offered by any photographic magazine.

OUR MONTHLY COMPETITION

The competition this month, being general, has as usual produced an entry list of more than usual proportions and the quality of the prints submitted was, we are glad to say, correspondingly high. It proved an extremely difficult task for the judges to decide upon the prize winners, and an extra third prize was awarded. The list of honorable mentions is a long one. With the steady growth of the magazine the number of entries increases from month to month and we find the two departments of criticism and competition work into each other with satisfying results. Many of the entries in the competition carry a request that they be criticized in the "Portfolio" if not successful, and we are glad to say that a good many of those who started in by sending prints to the "Portfolio" have since attained honorable mention or prizes in the monthly competitions.

One or two complaints have been made that prints sent in to the competition have not been acknowledged. We would like to send an acknowledgment of the receipt of every picture, but with our office work in its present state of congestion it is impossible for us to consider acknowledging these prints, which would require several hundred letters each month. The prints are taken all possible care of and are returned as promptly as may be after the judging is done, and our competitors must learn from the magazine itself whether their pictures have succeeded, and take it for granted that although we return the prints without a formal acknowledgment, we are glad to get them and give them careful consideration and impartial judgment. The purpose of this competition is not so much to reward those who have made good prints as to afford our readers a chance to put their work in competition with that of others of similar enthusiasm all over the United States, and we believe that the joy of winning is a far greater reward than any prize that we can offer, and that an honorable mention in our competitions is a substantial recognition of the merit of the prints. The list of awards is as follows:—

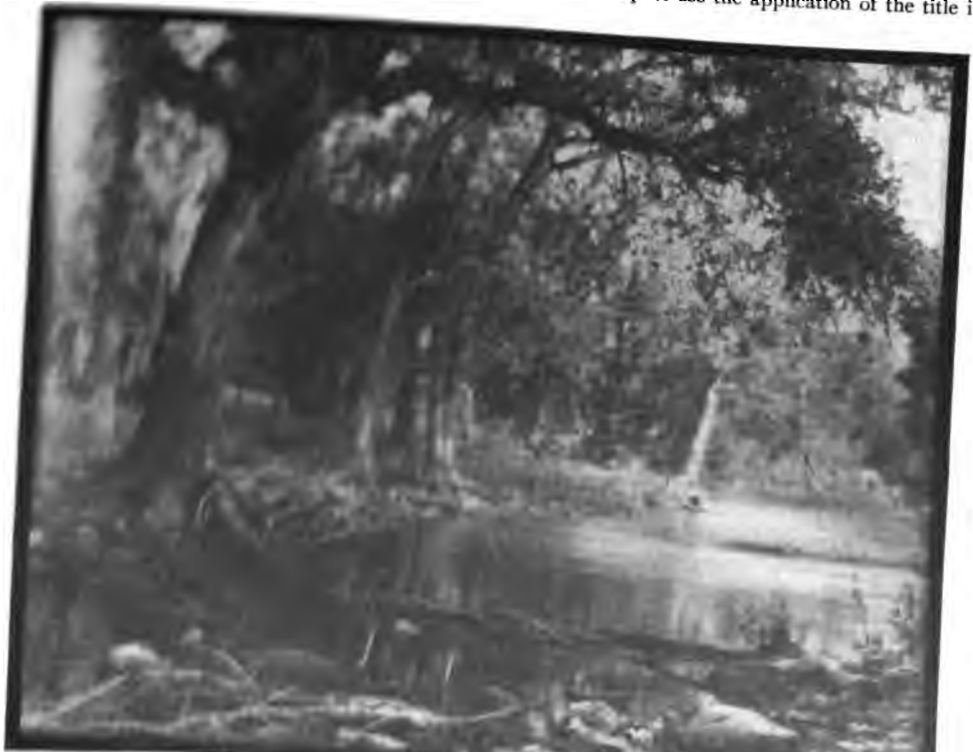
First prize, "Roman Arches," Wm. H. Phillips, East Liverpool, Ohio; second prize, "Coup de Soleil," H. Y. Sümmons, Glen Gordon, Camberley, England; third prize, "Peter," Miss Grete Back, Dresden-Blasewitz, Germany; third prize, "Evening Shadows," Harry D. Williar, Baltimore, Md. Honorable Mention: "Patience has Its Own Reward," A. R. Allen; "Head of a Young Girl," Paul L. Anderson; "Still Life," E. J. Brookins; "Sunset on the Pacific," D. N. Campbell; "By the Side of an Old Canal," V. R. Cunningham; "Birches and Firs," Charles W. Darrell; "A Child of the Forest," Lewis J. Fitler; "The Spinner," Fred D. Gardner; "Baby," H. W. Gooderl; "Adirondack Visitor," H. M. Goulden; "The Three Poplars," R. S. Kauffman; "Landscape," Samuel S. Ludlum; "Day Dreams," V. G. Parnell; "An Autumn Morn," Richard Pertuch; "Good Night," Harry G. Phister; "To Pasture," John J. Reilly; "Sea Urchins," J. Herbert Saunders; "Nerve," Chas. A. Schneider; "A Country Lane," Henry Thew Stephenson; "Grandpa," H. E. Stout; "Portrait Study," U. LeRoi Upson; "The Brook in Springtime," M. A. Yauch.

OUR PORTFOLIO.

[illegible] to Frank R. Fraprie, 6 Beacon Street, Boston, Mass. [illegible] criticized each month. Prints are not returned [illegible] indicates that the print is reproduced.

[illegible] around on the side of the face. To get sufficient exposure on the face you have given too much exposure to the hair and white bow, and have too many catch lights on the head and clothes. The pose is graceful and natural and the subject well carries out the title.

339. **Fred E. Crum.** — "The Autumn Leaves." We do not quite see the application of the title in this



347. WHERE FAIRIES USED TO PLAY MILES J. BREUER

351. EARLY MORN IN AUTUMN GEO. H. WENDER

picture. The young lady seems to be stirring up a stagnant pool with a stick. Perhaps she is trying to catch a floating leaf. As a snap-shot this seems to have about correct exposure, but as a pictorial composition it does not seem interesting to us. The figures are too far to the side, and the white spots do not balance well with the rest of the picture. As a genre picture this is a failure, because the action supposed to be represented is not self-evident on inspection. Your other print is left for another occasion.

340. THOS. BRADT. — "A Country School Group." Your group picture is very flat. From the picture we are unable to determine whether this is due to general fog, but this seems to be the cause. If this is so, perhaps a slight amount of reduction with Farmer's reducer will brighten up the negative considerably. A serious fault is that you have not got the group on the plate. You have spare space at the top of the print while the feet of the sitters in the front row are cut off. You should have taken your camera a little farther back so as to get the whole group in the picture. The arrangement of the individuals in the group is not unpleasing, the heads forming a series of double reverse curves which is rather interesting.

*341. CLEMENT W. LOWE. — Your print of "Bull's Mill Bridge" gives an excellent idea of the massive masonry of this structure and is a far better composition than you would have made if you had taken the bridge broadside on. The lines of the bridge converge well and make an interesting arrangement. If you did not have the inclined trees at the side which almost parallel the lines of the top of the bridge, the picture would have been much stronger. It needed an opposition in this corner, and the vertical trees which grow there, without these inclined ones, would have made an excellent composition. Unfortunately, of course, you could not make the trees grow otherwise, nor could you take the picture without including them.

342. ADELBERT W. PATRIDGE. — "Roses." Of the two prints of this subject which you send us we much prefer the brown one, both because it is better trimmed and because it is a better print, showing a fuller range of values. At the same time it is not a wholly satisfactory picture. In the first place your flowers are not well arranged. Three large roses crowded together in a small tumbler make a crowded mass, and one would have been much better. In the second place you have not enough depth of focus, so that the roses are well in focus, and the tumbler is very much out of focus. In the third place you have not given sufficient exposure. At the same time the result is not unpleasing, and we would advise you to try the same thing over again, using one flower and preferably a bud, rather than a full blown rose.

343. Dr. **Franklin F. Massey.** — Your figure study is taken in most interesting surroundings, and is well posed and properly timed. We doubt, however, the advisability of draping the little girl in the American Flag, and think this would much better have been omitted. The child is too young to suggest the idea of a "Goddess of Liberty," and it seems to us that you could have posed her without this unnecessary adjunct to make a very attractive picture.

344. **J. D. Denovan.** — "The Leaves at Dundurn." This is a pleasing foreground study and the lines of the picture carry extremely well straight through to the extreme distance. At the same time we feel that one quarter or one half inch more on the top might have helped matters. The upper horizontal line seems rather too near the edge of the picture, and there is a little too much foreground below the bottom of the trunk of the nearest tree. As for a printing process, we would suggest that you make an enlargement on a cream bromide paper like the small print, and tone it sepia, as this seems to carry out the effect of sunlight very well.

345. **Robt. Ervien.** — The exposure on your portrait has been far too short for the limited light you used, and you have a print of the most extreme type of soot and whitewash,— absolute black for all the shadows with the coat and hair disappearing into the background, and total loss of detail in the high lights in the face. Much more exposure and considerably more water in the developer would have helped matters.

346. **Ezra P. Lincoln.** — "Rounding the Curve" is a rather good technical picture of a subject which every amateur tries at some stage in his career. You have got the feeling of motion well, principally due to the smoke and also partly to the exhaust on the side. You have taken this train from the worst point you could; that is, you have put your tripod on the outside of the curve, so that the train apparently consists of the engine taken almost head on without anything behind it. If you must take a train on a curve, get on the inside where the whole train can be seen. It is better, however, to use a piece of straight track, as then the train appears in diminishing perspective, and carries the interest through the picture. You have got your train exactly in the center of the print, the weakest point artistically, and you had better cut off an inch and a half from the left-hand side. The exposure is somewhat short, but on the whole the negative is not seriously under-exposed.

*347. **Miles J. Breuer.**—"Where Fairies used to Play." You have chosen a very interesting spot to make this landscape picture, and we think that you might make a most interesting negative here. The sweeping curve made by the roots of the tree, its trunk and the projecting branch make almost a complete oval which encloses a beautiful vista beyond. You have, however, made the whole scene unpleasantly out of focus. In our opinion the proper thing for you to have done at this spot was to take a sharper negative and get your diffusion, if you desired it, by enlarging. We hope you will try it again and let us see the results at some future time.

357. WHERE THE WATERS FLOW NATHAN S. WALES

352. AN INSPECTION TRIP CHESTER M. IRWIN

348. R. V. HEIB. — Your picture evidently does not purport to be more than a record of camp life, and as such it is probably of considerable interest to those directly concerned. It would hardly appeal to any outsider, however, as an interesting picture. You have developed your exposure, which seems to have been about right, so far that almost all the details of the canvas are lost. A little more exposure would have made the shadows in the tents somewhat less dense and probably have given a little more quality to the white stretches of canvas.

349. HARRY G. BURNS. — "His Easter Rabbit." We do not quite understand why this little boy should be setting up his rabbit on this elaborately decorated porcelain pedestal, but a child might, of course, do such a thing, and it is perfectly proper to photograph him at his play. The most serious defect in the picture is the fact that the little boy does not seem to be playing, but to be standing up for his picture, directly facing the sunlight, so bright that his eyes are closed and his forehead wrinkled. The child certainly would not have done this naturally, but would have placed himself in such a position that he could see what he was doing. The exposure is much too short and the picture is over-developed, resulting in chalky high lights and jet black shadows absolutely lacking in detail.

350. RAY F. WYCOFF. — Your group of two people — one standing and one sitting under a tree — suffers, in the first place, from serious under-exposure. The man's coat is one black mass from shoulder to skirts, without a suggestion of detail, which you should be able yourself to recognize as a serious fault. In the second place the group is extremely constrained; both the man and woman are very much aware of the fact that they are having their pictures taken. She sits as if petrified, bracing herself back in the chair so as to be sure not to move, while he stands as stiff as a ramrod by her side, with every member rigid and symmetrically placed. If this man and woman were outdoors of their own volition they would be interested in each other, and not both be staring straight in front of them, apparently unknowing of each other's existence. If the man had stood behind the bench, leaning upon it and looking down at the woman, or if she were looking up at him and he were resting on the arm, you would have had a natural and attractive picture.

*351. GEO. H. WENDER. — "Early Morning in Autumn." The fault which you evidently find yourself in your landscape composition, but cannot define, is a lack of aerial perspective. This may seem absurd to you when the far distance is so flooded in mist as to be almost hidden. If, however, you will look at the bushes in the immediate foreground, and then at the trees in the middle distance, you will see that they have almost the same color values and that one

341. BULL'S MILL BRIDGE C. W. LOWE

is apparently as near your eyes as the other. In nature these bushes would have seemed much blacker than the trees fifty or one hundred feet away, and this it is which destroys almost entirely the illusion of distance and so robs the picture of what should be its greatest charm. At the same time the bushes in the foreground are altogether too vertical and there are too many of them. If you had left the little clump in the lower right-hand corner, and cut those in the left-hand corner out of the way, we think you would have found the arrangement more satisfactory.

*352. CHESTER M. IRWIN.—Your photograph of three men evidently on an inspection tour is natural and convincing. The figures are well placed, are interested in their business, and the values throughout the print are good. This is a pictorial rendering of an unpictorial subject.

353. E. H. WEBBER.—"Pouting." It seems to us that this young lady would have made a better portrait had her head been a little more erect. The face is foreshortened and appears too round, and the position of the head gives the impression that the sitter is about to fall over. We do not like your oval framing. The rim of light round the head takes away the attention from the subject, and we would prefer a plain oval mounted on a gray mount or a square trimming. The exposure seems to be right, but, as you suggest, a print on softer paper would probably give more detail in the hair and make the contrasts not quite so strong.

*354. MRS. E. R. THORDENBERG.—As you will see by the rules of the department, we criticize but one print a month. If we did not make some such rule, we would be flooded with work, therefore, we are criticizing this time only one of your prints, and may return to others in a future issue. In general we would say that your exposures are much more nearly correct than those of the average amateur prints which come to us for criticism. "Haying" is a very good picture of this somewhat overworked subject. It is a trifle under-exposed and over-developed. The shadows of the pine trees are too dense and the white horses have not enough detail. The printing paper is partly responsible for this, without doubt. Otherwise the figures are well placed and the picture is about as good as you can make with your apparatus. The most serious defect is the use of a lens of too short focus. This causes the horses to appear many times larger than the man on the mowing machine just behind them. They are foreshortened to such an extent as to cause a serious error in the relative proportions of objects. Instead of using a lens of about five or five and a half inches' focus you should have had one of at least nine inches for this subject.

359. HARRIET J. R. WEAVER

355. **Henry Wallis.** — Your print of a cottage on glossy paper is apparently toned in a combined toning and fixing bath and shows serious bleaching out in the sky, and an unpleasant color which one often observes in this process. We think you could get a very much better print from this negative on a developing paper. As a piece of architectural photography this violates one of the cardinal principles, which is never to take a view of a building from exactly in the middle of one side. Always take a position facing one corner, which gives a much more pleasing perspective and usually a much better lighting. You have now no shadows at all, and no architecture can be interesting without shadows to throw it into relief.

356. **C. R. Mills.** — From an inspection of your print we cannot decide whether this water scene with its numerous masts was taken in a fog or whether the plate was fogged in manipulation. In any case the print is so flat as to be uninteresting. There is no strong note in the darks, and there is nothing which approaches white in the print, so that you have by no means used the scale of values possible. We should suppose that you had much over-exposed and under-developed this print. As for arrangement, it is not at all pictorial. The largest schooner is exactly in the middle of the print, and the great white sign on the left-hand side does not add to the pictorial qualities of the print. If you had a better negative, you could trim a picture out of the middle of this print, but the negative is too poor to do much with.

*357. **Nathan S. Wales.**—"Where the Waters Flow." This print has pictorial merits of the highest quality. The straight dam across a river is one of the most difficult subjects which we know, from which to make a picture, but you have succeeded in using this uncompromising material to get a result of high merit. The water seems to have real motion, and the straight line of the dam is not obtrusive in this case, because the principal lines of the picture are all horizontal and this accords well with the feeling of evening peace. While the lower half of the print, however, is negatively good, by lacking the unfortunate errors of many waterfall pictures, the top part has positive qualities of high merit. You have successfully reproduced a sunset, a very difficult thing to do photographically. The main factor in this success is the beautiful quality of the water with its reflections. The touch of high light on the edge of the dam and the reflections of the clouds in the absolutely still water greatly heighten the effect of the sky. The house and trees in the left upper corner fully carry out the effect of evening, and are most happily rendered. The sole unfortunate touch in the picture is the presence of one or two obtrusive shrubs which you should have cut down before photographing. A suggestion of shrubbery here would help to give a feeling of dis-

354. THE MOWER MRS. E. R. THORDENBERG

tance, but the biggest switch extends too far into the picture and should be touched out on the negative if possible.

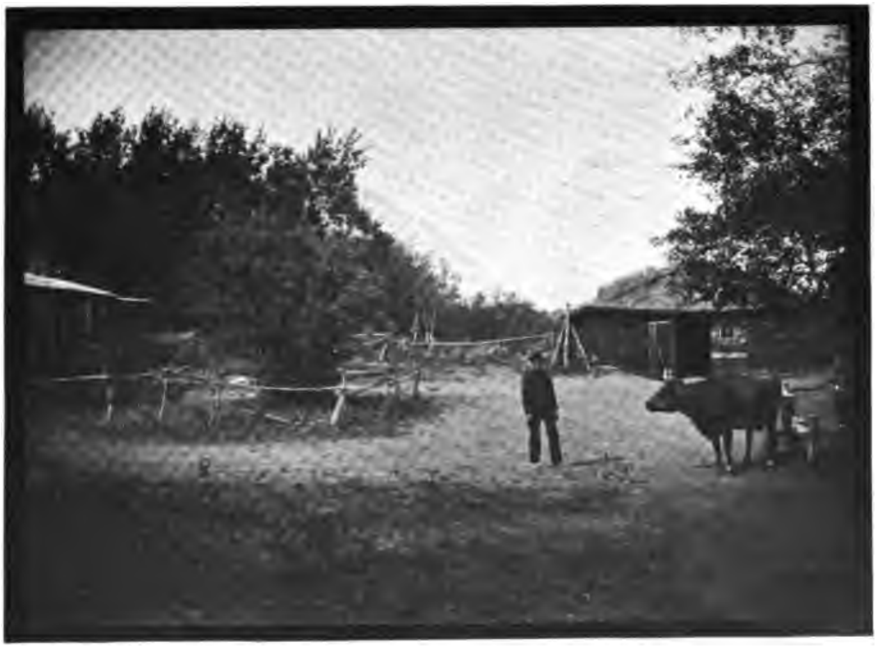
358. C. W. C. — These two prints from the same negative seem to be a little at fault in the technique. The enlargement shows, as is usually the case, a loss in vigor, and this makes a very much more satisfactory print, as the direct print is far too contrasty. The negative shows signs of under-exposure and over-development. Use more water in your developer. While it is no doubt difficult to make pictures of children, we feel that this would have been much more interesting had you caught the little girl playing with her doll and then snapped her when she was unconscious of the camera, instead of posing her bolt upright and looking into the instrument.

*359. J. R. WEAVER.—Your picture of a little girl smiling is an excellent picture of a child. We do not see how it could be bettered in any way. The background is unobtrusive, and the whole attention is concentrated on the little girl, who is pictured in a natural and unconstrained position and smiling in a most gracious and winsome manner.

360. J. M. KANE. — This three quarter view of your subject is well taken, as far as the subject himself is concerned. The exposure is correct and the technique admirable. We might make exceptions to the pose, both as to its stiffness and its showing an unsatisfactory proportion of the whole figure, but this you will doubtless overcome yourself as you progress. We do, however, most seriously object to the fault which you mention, and defend. It is not satisfactory in any portrait to have these unfortunate light spots all over the background, competing for attention with the subject. If you will take one of your prints on black paper, and with a soft lead pencil go over all these spots, bringing them down to uniform tone, and then compare it with an untouched print, you will see at once the great difference in effect. The background is fully as important in the making of a portrait as the subject, and an unfortunate background will destroy all the good work you may expend on the sitter.

361. FRED DOUDNA. — "The Old Willow." The print which you sent us for criticism is badly stained in development. This, joined to its light tone, shows that you did not give the print itself enough exposure and forced it in development. The paper may have been old, as a contributory cause, but the result is an unsatisfactory print. You probably have a very dense negative, due to over-exposure, and find it hard to give printing time enough. The composition is rather interesting, though we would have preferred the arrangement had you placed the camera two or three feet more to the left, thereby bringing the trees farther into the picture, and at the same time showing a longer shore line and more water.

*362. RALPH REDDING.—"A Homestead in Saskatchewan." Your print of a farmyard has elements of picturesqueness which, if properly marshaled, might make an interesting picture. It falls somewhat short of this ideal, however, through the selection of an unsatisfactory point of view. As you have taken the picture, you have at the right a sod-roofed barn and in front of it a group of accessories under a little tree.



362. HOMESTEAD IN SASKATCHEWAN, CANADA RALPH REDDING

369. THE VALLEY HERBERT J. DAY

At the right you have a portion of the farmer's shack, and between the two an irregular line of rustic fencing, behind which appear the woods. Your picture contains two quite separated interests and at the weakest point between them is the figure of a man posing for his picture. This strong vertical stroke completely separates the picture into two parts. If you had brought the camera around to the right so that you included more of the house, you would have got a strong interest in the foreground, and the fences and the little tree in front of the house would have carried the interest on to the barn, occupying a properly subordinated place in the background. The cow and the man could easily have been introduced into this better arrangement, but should be close enough together to form a group and not separated as they are in the present print.

*363. U. L. Upson. — "Portrait Study." This print received an Honorable Mention in our general competition this month. It is an excellent piece of portrait work in many respects. The placing of the head in the frame is interesting, although a little bit too far to the left. The position of the head in the oval, however, gives one the impression of instability, for the reason that the back and front lines of the bust both cut the edge of the oval too far back. The white ribbon confining the hair and carrying the line of the neck almost straight across the print is far too pronounced. If a ribbon was to be used, it should have been of a much deeper color, and some artifice should have been employed to keep it from connecting so closely with the line of the neck. We also feel that it is an error to so arrange the background that the lightest spot came against the profile, and is of almost the same value as the flesh tones against which it comes. Evidently you have been obliged to do a little pencil work or retouching to keep the face from merging into the background. After enumerating these defects, however, we may add that the general impression of the picture is pleasing.

364. A. C. Hitpas. — We have little to commend in this print. You have posed your subject in a chair in front of a window flooded with light and photographed directly into this light. The result is what might be expected,— under-exposure in the shadows, tremendous halation in the window, and generally a soot and whitewash result. As a result of the construction of your lens, photographing into the light has given you a bad flare spot at the bottom of the print. While photographing under such conditions as these is not impossible, it is a feat which tests the powers of even the best workers, and we would advise you to postpone a repetition of it until you have had more experience.

365. Dr. W. H. Bell. — "The Brook" is a piece of landscape somewhat above the average of amateur work, but which does not possess any outstanding qualities of interest in its composition. The exposure has not been more than just sufficient, and apparently the negative is somewhat over-developed, although

363. PORTRAIT STUDY C. L. UPSON

this may be the effect of using a contrasty printing paper. The result, however, is the same in either case, a little too much light all over, localized in the white flowers which make the foreground spotty, and in the sky which is absolutely devoid of character and represented by pure white paper. Your print shows evidence of motion, apparently on the part of the camera, which makes it rather unpleasant on close inspection.

366. B. G. HEVERLY. — You say that for six years you have read the magazine but have not been able to take advantage of the "Portfolio" until now, when you have subscribed. We are sorry that you have waited so long, for every reader of the magazine, whether he subscribes for the magazine or not, may send in prints to be criticized. Your print "Twilight" we cannot conscientiously visit with high praise. It is a sample of a kind of print which used to be very common, but is now becoming rarer,— under-exposed in the foreground to show cloud formations. They are usually taken in the middle of the afternoon and called "Moonlight." This is apparently taken about sunset. It does not, however, show the clouds properly, and is wholly under-exposed as far as both near and distant land masses are concerned. There is, of course, a strong pictorial beauty to be found at times in trees silhouetted against the sky, but here you have not much of that, and the outlines of the weeds in the foreground against the river are unpleasant. The space division is very unpleasing, as there is far too much sky for the foreground. The only way in which we find pictorial material in this is by trimming off the foreground just above the tops of the weeds and then cutting off all of the sky except a half an inch above the sky line. This makes a little bit about one inch high and two inches wide, which composes fairly well and reduces the interest to a unified one.

367. FORMAN G. HANNA. — "Portrait of Mrs. H." This is a fairly good outdoor portrait. We do not like the uneven distribution of light and shade on the dress, and to our minds the background is rather unpleasantly diffused. The subject, however, is unconstrained, and the pose is natural, and we assume that the picture interests the subject.

368. CARL A. ANDERSON. — It is not possible to say much in the way of criticism of this group. When you are confronted with the task of getting fifty or sixty people into the confines of a post-card, about all that can be done is to arrange them in lines and give proper exposure. This you seem to have done, and presumably you have made a salable post-card, which was undoubtedly your intention.

*369. H. J. DAY — "The Valley." This is a very picturesque scene, well photographed, and interestingly presented. We think you have done as well as you could with the material at hand, treating it in a conventional manner. Of course, other pictorialists might have made other pictures of this spot, but you have made one which pleases the eye, and that is achievement enough for one attempt. We will advise you to study this spot further, however, as we think you will find possibilities as yet unsuspected. We may return to your other prints on a future occasion.

370. JACK BECKWITH. — "In Dreamland." This is an unconventional picture and rather interesting. It suffers somewhat from under-exposure, which possibly was unavoidable. It seems to be an unconsciously posed picture and as such is commendable. At the same time the arrangement of the little sleeper is not pictorially the best which could be had, the crossed arms being rather unfortunate. Having got the idea, it might be well if you would take the picture over again with the little girl posing for you and study the arrangement a little more carefully.

371. FRED D. GARDNER. — "The Spinner" was awarded Honorable Mention in our general competition. It is an interesting print, but to our mind is more diffused than is necessary in a print of such small dimensions. Softness of focus undoubtedly on many occasions increases pictorial effect, but should not be resorted to without deliberate intent and with complete understanding of the artistic justification therefor. In as small a print as this, intended to be viewed at close range, such a broad effect is unnecessary and undesirable. The arrangement is good, but the contrasts seem rather too harsh and we would assume that somewhat more exposure would have been better.

SOCIETY NEWS.

The Sixth American Photographic Salon, which started its long circuit through a number of the principal cities of the United States in November, at the John Herron Art Institute of Indianapolis, was shown at the rooms of the Photographic Society of Philadelphia between December 6 and December 27, 1909. While the rooms of this society are undoubtedly well planned and convenient for their usual purposes of meeting and reading rooms, they are not especially adapted for the exhibition of a set of pictures as large as this, especially during the month of December, when the afternoon light is poor. The lighting arrangements in the main hall were satisfactory, but a large portion of the exhibition was hung in rear rooms lighted only by ordinary fixtures, and it was not possible under these circumstances to properly scrutinize all of the prints. The number of prints was so great that the hanging was perforce a simple massing of the frames. The society took all possible pains to prevent conflicting prints from killing each other by close proximity, but undoubtedly the impression made upon the average observer was far inferior to what might have been obtained were the prints properly spaced and separated.

We do not propose to go into a detailed criticism of the prints. We are very glad to be able to say that the exhibition contained a large number of prints of high merit, both American and foreign. We are sorry to be obliged to assert that it contained a far larger number of prints which should have been excluded from an exhibition of this importance. We are frank to confess that it is our belief that the reason for the disparity in merits of the best and the poorest prints was the manner of selection. Many of the prints which we do not believe should have been hung undoubtedly contained qualities which would appeal to a jury of artists, but were lacking in the merits which should render possible their exhibition as good photographs. We believe that among the supporters of the American Salon are many well-meaning amateurs who are working in more or less isolated situations on lines which unfortunately are not conducive to rapid progress photographically. We believe that many of these amateurs are misled into following what they believe to be the methods of other successful photographers, and we believe that the general tendency discernible in the work of many of these exhibitors leading them to gloominess and low tones, is the unfortunate result of copying methods of work which they do not fully understand. It has been generally remarked by European critics that the work made by amateurs in gloomy England is full of brightness and light, while the amateur work produced in America, a country with the bluest skies, and finest climate of the temperate zone, tends to dulness and gloominess. This phenomenon is undoubtedly due to the tendency of mankind to consider picturesque what is unusual, and we fear that our photographers photograph darkness and mist because they live in brightness and sunshine. We also think that many of them are blindly copying the scales of tones of the reproductions of *Camera Work* and other publications instead of going out to seek for themselves what is normal and picturesque. To speak very definitely of a few of the pictures, we may say that there is no question that the work of the Photo Pictorialists of Buffalo is the strongest and most mature of any of the Salon. There are a number of other individual workers who are producing work of high merit, some of them well-known names and others quite new to photographic exhibitions. Paul Lewis Anderson, although very much addicted to the use of a Smith lens, shows brilliancy and promise. F. J. Bruguière, J. W. Grierson, John F. Jones, R. F. Kauffmann, William H. Phillips, and Mrs. E. W. Willard show strong work. The foreign exhibit is disappointing in that it is not representative. Individual pictures are brilliant, but the collection does not show a series of characteristic work of any length from any European country.

We reproduce this month a half dozen or so of the more characteristic American pictures from the Salon, and it is possible that we may later reproduce some of the work from the foreign section. As a final word, we may say that the Sixth American Salon is better than its immediate predecessors, not equal to the first and in no wise equal to what an exhibition bearing the title American Salon should be. It is unfortunate that some of the best workers in the country should be unwilling or unable to exhibit, and we hope that the day may soon come when the absurd and un-American restrictions which now prevent united action on the part of all enthusiastic photographers in the United States will be forgotten relics of the past.

* * *

THE Boston Camera Club held its annual meeting at its club rooms, 50 Bromfield Street, on Monday, January 3, 1910. The following members were elected: Active, W. H. Boughton; Associate, George R. Shepherd; Honorary, W. Lyman Underwood. The annual report of the treasurer was read, from which it appeared that the membership stood at four more than on the first day of January last year, but that owing in part to a deficit from the preceding year, the club was somewhat more than $400 on the wrong side of the balance sheet financially. After discussion it was not deemed advisable to elect officers with this deficit existing, and the opinion of the club seemed to be that if affairs were to be continued for another year the deficit must first be wiped out. A committee was, therefore, appointed to solicit contributions to liquidate the deficit, and the meeting was adjourned for one week. At the adjourned meeting the committee reported that it had made such progress in securing pledges from members that it felt able to guarantee that the total amount necessary would be raised. Thereafter the officers for 1910 were elected as follows: President, Phineas Hubbard; Vice-President, A. E. Fowler; Secretary, J. H. Thurston; Treasurer, C. H. Chandler; Librarian, F. R. Fraprie. Executive Committee: E. W. Kellogg, C. F. Hildreth, S. B. Read, F. A. Saunderson, W. H. Wing, and F. R. Fraprie. A vigorous discussion as to the affairs of the club then followed, and it is expected that several improvements in the apparatus will be made as the results of new interest in club affairs which seems likely to be awakened.

On Monday, January 3, a set of slides by English photographers furnished to the American Lantern Slide Interchange by the *British Journal of Photography* was shown, and awakened the greatest interest and enthusiasm among the members. The slides were of a very high technical and artistic quality and showed lighting and atmospheric effects which elicited the highest praise from those present.

* * *

AN EXHIBITION of original lithographs by Henri de Toulouse-Lautrec (1864–1901) was held at the Little Gallery of the Photo-Secession, 291 Fifth Avenue New York, opening on December 20 and closing January 14. The gallery is open from ten A.M. until six P.M. daily, Sundays excepted. The exhibition opening on January 15 was devoted to a series of original photographs by Eduard J. Steichen.

THE POSTAL PHOTOGRAPHIC CLUB MONTHLY BULLETIN. — The Album for January, 1910, was issued January 1, 1910. It contains thirty prints. The Albums now *en route* are located as follows: Album for October, 1909, at Boston; Album for November, 1909, at Burlington; Album for December, 1909, at North Adams. The year 1909 was one of great prosperity for the club, and the year 1910 bids fair to be equally prosperous. As previously announced in the Bulletin for December, 1909, the officers of the club were reelected to serve during the year 1910. These officers have been reelected annually for the past ten years. The club is in a highly prosperous condition. In addition to its authorized strength (forty) there is a waiting list of three. Its finances are in a healthy condition, the character of the work exhibited in the club albums is of a high grade, and the utmost harmony, zeal and enthusiasm prevail among the members. The secretary extends the greetings of the season to his fellow members.

G. A. BRANDT, *Secretary.*

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THE annual joint exhibitions of Pictorial Photography of the Edinburgh Photographic Society and the Glasgow and West of Scotland Amateur Photographic Association will be held in Glasgow from February 1 to 16, and in Edinburgh from February 26 to March 12. A large number of American pictures will be shown by invitation, the collection being that made by the editor of AMERICAN PHOTOGRAPHY, which had previously been shown in London and Southport.

* * *

THE Camera Club Print Interchange consists this year of the following Camera Clubs: Portland, Me., Boston, Essex, Orange, Photographic Society of Philadelphia Photographic Club of Baltimore, Capital Camera Club, Photographic Section of Pittsburgh Academy, Akron, Chicago, and Buffalo. Each club prepares an exhibit of from twenty to thirty prints and ships to the next club on the list. All clubs ship on the same day, and the eleven exhibits thus pass from club to club as a wheel. Shipping dates are identical through the circuit and each exhibit moves once in three weeks. Each club is supposed to write a criticism on each exhibit and mail it direct to the club which made the collection. This Interchange has now been in operation for several years, and is of great value to the clubs concerned.

* * *

THE JAMESTOWN CAMERA CLUB calls attention to its Third Annual Exhibition, to be held March 7 to 12 inclusive, 1910, and invites entries in a general class open only to members of camera clubs and other amateur photographic organizations. The success of the Inter-club Contest of 1909 led the club to decide on a general exhibit as a feature of each annual, but as the result of last year's experience some changes have been made. Rules and entry blanks may be had from J. M. Cushman, Jamestown, N. Y.

* * *

THE Linked Ring will not hold a salon this year.

There has been formed in London a Salon Club which already includes Alex. Keighley, A. H. Blake, M. A., A. J. Anderson, Charles Emanuel, Reginald Craigie, Charles Job, J. B. B. Wellington, Will Cadby, Mrs. Cadby, F. J. Mortimer, and several other members of the Linked Ring. It has also a number of prominent pictorialists, who are not members of the Linked Ring, and it has the active sympathy of C. Yarnall Abbott, Sidney Carter, F. Mortimer Lamb, Robert Demachy, Colonel Puyo, Rudolph Dührkoop, the brothers Hofmeister, Paul Pichier, and many others.

* * *

FRANK R. FRAPRIE, editor of AMERICAN PHOTOGRAPHY, was elected a Fellow of the Royal Photographic Society at the meeting of the Council held in December, 1909.

CHAS. E. DAWSON.

OUR TABLE.

Material for examination and books for review may be sent to Frank R. Fraprie, 6 Beacon Street, Boston, Mass. Any book reviewed will be supplied by our Boston office at the price mentioned.

THE BRITISH JOURNAL PHOTOGRAPHIC ALMANAC, 1910. Edited by Geo. E. Brown, F. I. C. Published in the United States by Geo. Murphy, Inc., 57 East 9th Street, New York. Price, paper, 50 cents; postage, 27 cents; cloth, $1; postage, 37 cents.

The publishers of the British Journal Almanac have before them year by year the problem of keeping down the size of the bulky volume with which we are all familiar, and this year they have succeeded in making it a trifle smaller than last year. At the same time we cannot see that the compression of the text contents has diminished their value or that any of the familiar advertisers are absent. It is probable that the majority of readers are as much interested in the advertising matter as in the text, and these many-colored pages in the front and back of the book afford a pretty complete guide to what is made for photographic use throughout the English-speaking world. The leading article, which comprises, however, only about a dozen pages, is on lens calculations by mental arithmetic; then follow an epitome of progress summarizing the advance of the year in photographic discovery, novelties in apparatus, and the usual formulas and tables. The book is an excellent reference book needed by every photographer, and as the publishers already report that the entire edition is sold both in Europe and America, we would advise those who desire the book to get it from their stock house as soon as possible.

MESSRS. SCHERING & GLATZ, 58 Maiden Lane, New York, who have long been known for their famous pyro, have recently decided to carry in stock and furnish to the trade in this country a large line of photographic chemicals. The first one which they have begun to advertise is the new developer satripol, of which we spoke last month. They also carry glycin, which is well known and largely used as a tank developer. Other special chemicals which they furnish in great purity are C. P. anhydrous sodium sulphite and sodium carbonate, and also sodium sulphide free from thio sulphate, especially prepared for the making of sepia prints by the redeveloping process.

* * *

AMERICAN made post-cards are being used in preference to the imported European cards.

One firm in particular, The National Colortype Co., of Cincinnati, Ohio, have made rapid strides in improving this great American industry.

They have devoted many years experimenting and improving hand-colored cards and are now in a position to deliver orders in two to three weeks, whereas four to six months are required to procure foreign cards. They will gladly send you a sample set of post-cards if you mention AMERICAN PHOTOGRAPHY.

* * *

"THE MARVELS OF PHOTOGRAPHY," the lecture demonstration arranged by Mr. H. Snowden Ward, F.R.P.S., was first given in this country under the auspices of the New York Camera Club, at the end of the second week in January. It is booked by the Professional Photographers' Association of New York for Buffalo on February 4, and for New York, and by lecture courses for Pittsburg, Cleveland, Ohio, and cities in the New England States, including Concord, Exeter, and several others. Negotiations are in progress with many other organizations, and seem to promise a comprehensive course through the Eastern States.

Mr. Ward has also booked a considerable number of dates for his lectures on literary subjects, — "The Canterbury Pilgrimages," "Shakespeare at Home," and "The Humor and Pathos of Dickens," all of which are illustrated with slides by Mrs. Catharine Weed Ward.

Dates provisionally allocated to New England District, January 17–22, February 21–26. New York State, January 31–February 12. Pennsylvania, etc., January 24–29, February 14–19. Ohio, Illinois, Indiana, etc., February 28–March 19. New York State, March 21–April 6. Dates definitely booked are: January 14, 17, 19, 25, 26, and 27; February 4, 14, 15, 16, 21, 23, and 24, and April 7. Many other subjects are booked, but dates not yet fixed. The places include several in New York State, four in the New England States, Baltimore, Cleveland, Chicago, etc.

* * *

THE C. P. GOERZ AMERICAN OPTICAL COMPANY, 79 East 130th Street, New York, wants negatives made with Goerz lenses. They pay cash for them, from $25 down, according to what they are worth. They must be unusually good, of striking, or at least interesting, subjects, and must have all-around lens excellence.

Negatives may be made with either the Goerz "DAGOR," "CELOR," or "SYNTOR." No restriction as to size of lens or negative, but preference will be given to the popular amateur sizes. Submit a glossy print first, giving all details of stop, exposure, light conditions, camera used, etc.

Every amateur has at least one "best" negative. Send us a print from that one. We shall return all unavailable prints. A value will be given to each available one, and communicated to you promptly. You are free to accept or reject our offer.

Further details on request to the address above.

* * *

A GRAND PRIZE (Highest Award) has been conferred upon Messrs. Burroughs, Wellcome & Co. for their exhibit of "Tabloid" and "Soloid" brand products, including "Tabloid" photographic chemicals and "Wellcome" brand chemicals, at the recent Alaska-Yukon-Pacific Exposition, held at Seattle.

* * *

WELLINGTON & WARD have recently introduced a new Cream bromide with a delightful canvas surface. The results are extremely pleasing for exhibition work and high-grade portraiture. The working of this new grade is the same as the Cream Crayon bromide which yields exquisite sepia tones in the sulphide bath Ralph Harris & Co., 26 Bromfield Street, Boston, are the United States agents, and will be pleased to furnish particulars on application.

* * *

A NEW ANASTIGMAT. — The double anastigmat Eurynar is a new introduction by the optical works of G. Rodenstock of München, Germany, and is one of a variety of photographic lenses manufactured by this firm. The Eurynar was placed on the market late in May, 1909, and the demand has proved so intense that the works have been enlarged to insure more prompt deliveries after February 1. Messrs. James Frank & Son, of Augusta, Ga., American agents, received lens No. 10,822 in the last shipment from the works, showing average sales of the Eurynar to have been nearly sixteen hundred per month. The Eurynar has the distinction of coming from one of the famous optical works of Germany and from a country where they know what is good in optics.

* * *

RALPH HARRIS & CO., 26 Bromfield Street, Boston, report the sale of the Wellington Lantern Slide plates greatly increasing. The plates handled by this Boston firm, who are the United States agents, are especially made for the American trade, being a trifle faster than the plate used abroad. The results are beautifully clean and bright. Information and price list can be obtained from the above concern.

* * *

THE DEMAND for the high quality goods manufactured by the ANSCO COMPANY is growing so rapidly in all sections of the country that one branch after the other has been compelled to enlarge its quarters in order to cope promptly and effectively, as is the policy of the company, with the ever growing demand.

The New England branch, formerly located at 101 Tremont Street, Boston, Mass., has recently moved to 46 Cornhill, Boston, Mass. It will carry a larger stock on hand than was possible before, so that it will be a great convenience to the independent dealers, through which channels the Ansco Company distributes its goods to the consumer. The *personnel* of the branch will be increased accordingly.

Be sure to send your orders to 46 Cornhill, Boston, Mass.

* * *

THOSE of our readers who have been intending to write for literature on Cooke lenses will please note that the American branch house of Taylor, Taylor, & Hobson, Ltd., is now known as the Taylor-Hobson Co., 1135 Broadway, New York.

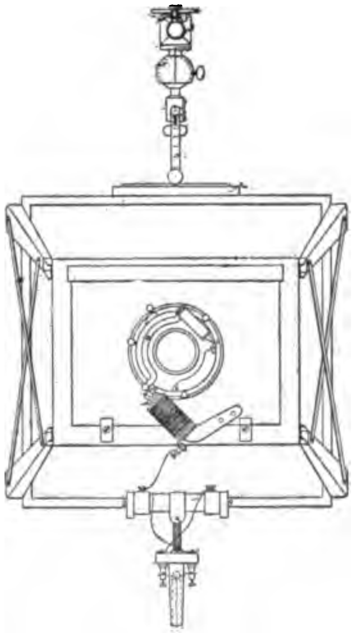
RECENT PATENTS.

CHAS. B. DAWSON.

Abstracted by F. C. Beach. Copies of any of these patents may be obtained at 10 cents each from Munn & Co., Patent Solicitors, 361 Broadway, New York City.

October 5, 1909.

935,760. ART OF PHOTOGRAPHY. JOSEPH J. JOHNSON, Dayton, Ohio.



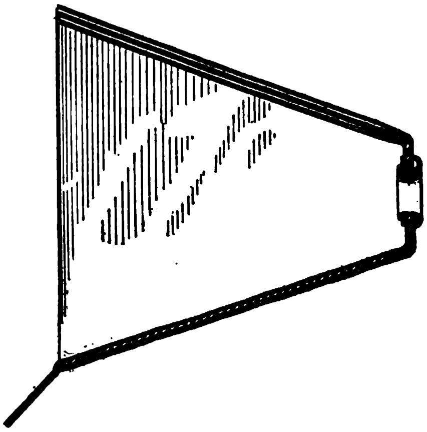
The invention relates to a specially constructed camera with particular attachments providing for the suspension of the camera in the air from a kite line and to be rigidly held in any horizontal position to take landscape views in certain predetermined directions, the shutter to be released automatically when the base of camera is in a level position. The kite line passes through a tube at the extreme upper end of the illustration, down back of the camera, and out through an aperture in a small plate located between two electrical binding-posts, as shown by the single dotted line. A screw clamp in the upper part locks the camera to the kite line. Below this part is a ball and socket joint with another screw clamp. This joint permits the camera to be rotated horizontally to any desired position and locked by the screw. Below is the strap of metal from which the camera is suspended. On the front of the camera frame is an enlarged portion which is a mercurial level electric switch, connected with the binding-posts below by wires, and to a shutter release electro-magnet fixed below the lens. Wires pass down the kite line to the ground from the binding-posts, and are there connected with a battery. The operator on the ground simply closes a switch there when he wants the shutter to operate, and knows when the camera is perfectly level that the automatic mercury switch will close the circuit and release the shutter, thereby making one exposure. The kite line is then drawn down till the camera is in the hands of the operator, the plate holder is changed, the kite then raises the camera to the desired elevation, and a second and other views are successively made.

936,031. MOVING PICTURE MACHINE. JOHN J. PINK Chicago, Ill.

The principal feature in this invention consists in the use of a rectangular-shaped plate with a vertical slot in the center and a secondary slot in an extension below. An eccentric cam travels in the upper slot, producing a forward and backward motion to the plate, while an adjoining cam on the same shaft operates the plate up and down. A stationary pin in the lower slot acts as a fulcrum or pivot to hold the lower extension of the plate from moving laterally, thereby allowing the upper part to move in that direction. On the upper edges of the plate are a set of spurs which engage the perforations in the film when the plate is moved forward by one cam and draw the film downward, one picture at a time, as the second cam operates to produce the up and down movement. At the end of the down movement the inner cam oscillates the upper end of the plate inward, withdrawing the projections from the film perforations, while the larger cam carries the plate upward one picture, ready to repeat the operation. The cams are carried by the operating shaft.

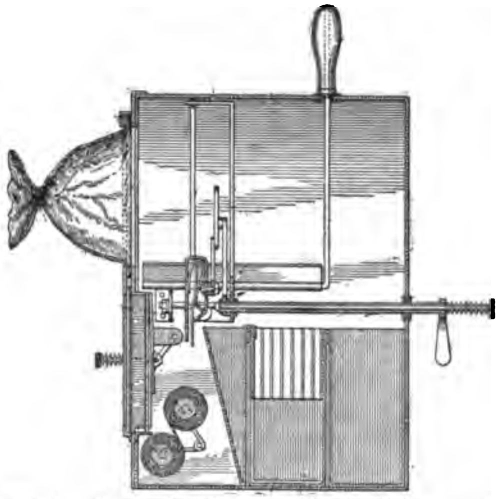
October 12, 1909.

936,307. FOCUSING HOOD FOR CAMERAS. EDWARD P. COMRIE, Gloversville, N. Y.



The top, viewing end, and bottom of the hood is made of some rigid material bent in the V-shaped form, as shown. The two sides are made of flexible material. The upper end is secured to the camera by a sort of hinge which permits the hood to be turned up out of the way of the ground glass. The projecting end on the bottom is to raise the hood by. There are two viewing apertures, one for each eye. It dispenses with the use of a focusing cloth.

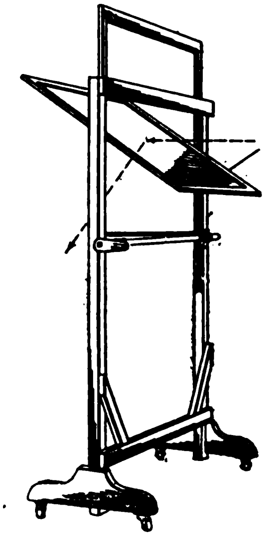
936,328. PHOTOGRAPHIC APPARATUS. Henry P. Jordan, Fort Lawn, S. C.

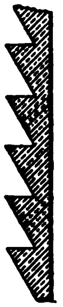


The invention consists of a rectangular-shaped box, one side of which is removable and contains windows and slidable frames for holding flexible sleeves closed tightly by elastic bands. The main novelty relates to the devices for bringing the sensitized paper sheets up to a negative and transferring the exposed sheet to the washing and developing tanks by the use of peculiar-shaped levers and spring operated shafts.

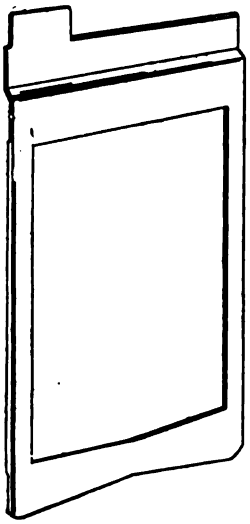
To develop a negative the plate holder containing the exposed plate is inserted through a sliding window, located in the upper side of the box. The window is closed, then the hands are put into the elastic sleeves, the plate holder slide is withdrawn, the plate removed and placed in a tank developer by the hands, shown in light lines between two other tanks in the illustration at the bottom part of the box. After development it is transferred by the hands to the fixing bath, located to the right of the developing box. To the left of the central developing tank is a V-shaped tank, hooked over the edge of the inner tank. This is used for the development of a single plate at a time. The other mechanism relates to making prints of the usual development type. In the lower left-hand corner are two rolls held apart by a spring. Over the rolls is a layer of black paper. One end of the shaft of each roller extends to and through the side of the box to the outside, and is made square-shaped for a key to fit over the end. The package of fresh sheets of paper is inserted in the box through a window, then the operator puts his hands through the elastic sleeves, removes each sheet separately from the package, placing it on the surface of the black paper roll which serves as an apron or support for the sheet. In this case the paper is unwound from the top roll to the lower one by the key shaft on the outside. Each sheet of paper is placed on the paper in succession, and rolled up. The next step is the method of bringing successively the paper sheets behind the negative for exposure and removal for development. To the left, above the rolls, the negative is secured in an opening in the side of the box in a vertical position. A platen, back of it, presses equally on the surface of the negative. Hinged to and extending from the back of the platen at an angle is a connecting-rod, pivoted to a rigid extension or ear. The pin with a head and encircled by a spring pressing outward is observed extending beyond the left side of the box. Its rear end operates against the platen, pushing the lower end of the latter outward or rearward when the pin on the outside is pressed inward by the finger. In this position the lower end of the platen rests against the upper feed roll and guides the sheet of paper upward in front of the platen and behind the negative as the feed roll is rotated by a key on the outside. When the sheet of unexposed paper is in proper position, pressure on the outside pin is relaxed, which causes the spring to bring the platen tightly up against the paper. After the exposure is made, a peculiar-shaped spring finger connected to a solid horizontal rod within a hollow, rotatable, horizontal shaft (shown on the right) is pushed inward, the finger catching the exposed sheet. Then by rotation of the shaft the sheet is raised by certain devices and moved to the right and finally transferred to the developing tank, then to the washing, fixing, and washing tank. After washing the print is elevated by means of the handle projecting, shown at the top, and drawn over a flat, slightly curved metal plate to dry without curling.

936,707. PHOTOGRAPHER'S LIGHT REFRACTOR. William C. Farrand, Newark, N. J.





In place of the usual flat reflector, the inventor substitutes a prism refracting sheet of glass (see the sectional illustration) where one side is smooth and the other side is composed of angular prisms, similar in idea to the usual prism windows for projecting the vertical light inward. The prism sheet is mounted in a pivoted frame, adjustable to any desired angle for projecting the beam of light upon the person or object photographed. The larger illustration shows how the glass in its frame is elevated and lowered by ropes and a lockable shaft to suit varying conditions.



October 19, 1909.

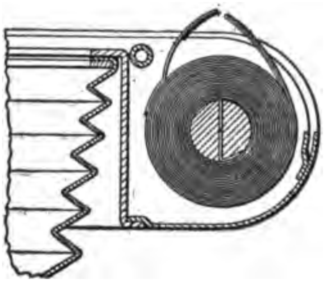
937,129. PHOTOGRAPHIC PLATE OR FILM HOLDER. Frank Whitney, Lakeside, Ill.

The illustrations show a perspective and sectional view of the paper plate or film holder. In the larger view the frame has a rectangular opening for the slide to work in. In the sectional view the peculiar form of crimp given to the upper and lower end is shown, making a better joint or light cut-off when the slide is drawn out. Individual holders are provided for each plate or film. The holders have special flaps at the upper end to carry a designating number. They may be grouped in paper cartons the size of a plate holder and inserted as one package in the camera. An index is provided to enter the title of each numbered exposure. The tearing off of a flap after an exposure enables the camera user to determine the fact that the particular plate designated has been exposed.

937,174. MOVING-PICTURE MACHINE. Barton A. Proctor, New York.

The main feature of this improvement is a special plate containing the film aperture, having a particular curved lower end, for diverting inward the downwardly moving film upon the sprocket roll, containing a peculiar cam for projecting automatically a spring finger into the central perforation of the film, drawing it down one picture, then withdrawing quickly from the film aperture.

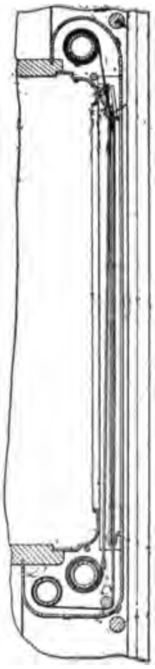
937,262. PHOTOGRAPHIC FILM ROLL. Thomas M. K. Overland, River Forest, Ill.



Instead of the usual separate gummed sheet to bind the ends of the kodak film roll together after the film has been exposed this improvement shows a small flap attached on the outside with a gummed surface on its inner side, observed on the left-hand projection; the right end projection is the end of the black paper. It is pressed down on the roll, then the left-hand end is wetted underneath and pressed on to the roll, holding the free end securely to the roll.

October 19, 1909.

937,248. PHOTOGRAPHIC SHUTTER. Robert Kroedel, Rochester, N. Y.



It consists mainly of a compound focal plane curtain shutter inserted in the rear part of a folding kodak camera, just in front of the sensitized film, with adjustments for varying the size of the shutter aperture and regulating the speed of exposure. The illustration shows a side or edge view of the shutter with one winding roll at the top and two tension rolls below. On the release of the upper roll the bottom tension rolls co-act to have one shutter operate a trifle faster than the other, causing the aperture in the curtain to pass before the film. There are special regulating devices on the exterior for releasing the shutter and adjusting the time of exposure.

Camera Notes

ORGAN OF THE

CAMERA CLUB OF NEW YORK

121 West 68th Street

FEBRUARY, 1910

Annual Meeting. — The annual meeting of the club was held on Thursday evening, January 6, 1910, at 8.30 o'clock. President C. H. Crosby presided.

The first matter was the election of four trustees, who had been duly nominated by a nominating committee of three, — namely, Messrs. W. H. Close, F. S. Gerrish, W. P. Little. On motion duly made and seconded, the secretary was directed to cast one ballot for the trustees, and they were declared elected for a term of three years. They were F. Benedict Herzog, J. Walter Righter, Maximilian Toch, and Arnold Wood.

The secretary's annual report, read by Mr. Harry Coutant, showed that the net active membership, after adding new members and deducting those who had resigned, remained at about ninety-six.

The treasurer's annual report, read by Mr. F. M. Hale, showed the annual dues and receipts from initiation fees, locker rentals, studio rentals, for the year, had been more than sufficient to pay all current bills and expenses by about $50, giving the club a good start for 1910. Both the secretary and treasurer reports were approved and ordered to be filed.

Mr. Charles I. Berg, chairman of the committee on prints and print exhibitions, reported upon the interest in printing the club members had taken during the previous year, and stated that exhibits had been held in the new quarters since the club took possession of them, as follows: —

Mr. H. Ravell, Exhibition of Multichrome Gum Prints, June July, and August, 1908.

The *Evening Telegram* Photographic Contest, October 1 to 15, 1908.

Department of Photography of the Brooklyn Institute of Arts and Sciences, October 19 to November 14, 1908.

Work of Members of the Camera Club, November 21, 1908, to January 1, 1909.

Prof. Ferd. Ellerman, Photographic Views of Mt. Wilson and Surrounding Country, January 9 to February 13, 1909.

The Sixth Annual Competition of the *Photo Era Magazine*, February 15 to March 13, 1909.

The Navajo Indians, Mr. Frederick Munson, March 22 to April 5, 1909.

The Century Company Color Reproduction of Illustrations for *Century Magazine*, April 20 to May 15, 1909.

Thomas R. Manley, Etchings and Pencil Sketches, May 15 to June 13, 1909.

Members' Exhibit, July, August, September, and October, 1909.

Robert S. Kauffman (of Wilkesbarre, Pa.), November 15 to December 5, 1909.

Miss Helen Messenger Murdock, Direct Color Photography, December 6, 1909, to January 1, 1910.

Wisconsin Camera Club, December 14, 1909, to January 1, 1910.

The committee further stated that the work of the members had been constantly improving both in quantity and quality, and also that a harmonious interest was noticeable among the members and a willingness to help each other and to assist the committee when called upon for examples of their work for exhibition purposes. The committee suggested the possibility of having from time to time, in addition to the members' permanent exhibitions, group exhibitions, or one-man exhibitions, which proved of such interest in former years. The report was signed by Charles I. Berg, chairman, and Williard P. Little.

Other committees made brief reports. The president spoke on the excellent status of the club, and thanked the members for the support they had given him during his term of office.

Following his remarks, votes of thanks were passed to the president for his services in bringing the club affairs up to their present efficiency, and to the board of trustees for their faithful work in promoting the club business.

There was some discussion and recommendations made that informal meetings be held monthly to consider and talk about various photographic subjects. After this an adjournment was taken.

Board Meetings. — A special meeting was held on January 4 to consider annual reports of the officers and other matters of minor importance.

The annual board meeting for the election of officers was held on January 6, after the annual club meeting. The officers elected for the ensuing year were: F. S. Hastings, president; F. Scott Gerrish, vice-president; Monroe W. Tingley, secretary; Frank M. Hale, treasurer. The present board of trustees is as follows: F. S. Hastings, F. Scott Gerrish, Monroe W. Tingley, Frank M. Hale, Harry Coutant, W. H. Close, Willard P. Little, Frederick C. Beach, F. Benedict Herzog, J. Walter Righter, Maximilian Toch, Arnold Wood.

Board meeting, January 11. At this meeting the following standing committees were appointed: —

Committees. — Admission Committee: M. W. Tingley, chairman; Ed. Heim; Dr. Henry Krouder. House Committee: Arnold Wood, chairman; W. H. Close. Print Committee: Maximilian Toch, chairman; Willard P. Little; Paul Strand. Lantern Slide Committee: Max Schneider, chairman; W. H. Close; M. W. Seaman. Meetings Committee: H. T. Rowley, chairman: Maximilian Toch; Chester A. Darling; A. K. Hanks. Auditing Committee: M. W. Tingley, chairman; F. Scott Gerrish; W. E. Wilmerding. American Lantern Slide Interchange: F. C. Beach, Interchange Club, director; L. V. Halem, librarian; W. N. Milner, repairs committee.

Pictorial Lecture and Demonstration on the Marvels of Photography, with some of its curiosities, by H. Snowden Ward, F.R.P.S.

This entertainment was held on Friday evening, January 14, at Mendelssohn Hall, 113 West 40th Street, New York, under the auspices of the Camera Club. The attendance was somewhat disappointing, on account of the very severe snowstorm that had prevailed all day and evening. After a little delay in starting, Mr. Ward, assisted by his associate, Mr. Frederick H. Barber of London, began his lecture by making an indirect flashlight of the audience, stating that at the close of the lecture he hoped to project a transparency of the negative upon the screen. Three or four cameras were on the platform, focused on the audience. With the same flash, he exposed behind large flexible negatives, 7 feet long by 44 inches wide, Eastman gaslight paper, intending to develop same before the audience later.

Then from a lantern in the rear gallery slides were projected upon a screen at the rear of the platform, illustrating many branches of photography. First, a photograph of a paper negative was shown, made by Fox Talbot in 1835, whom Mr. Ward claimed was more the father of photography than Daguerre. The prepared paper was set up in a holder in the rear of the camera and exposed like a plate. Talbot couldn't tell how long to expose except by observation. He had a small hole in the front camera section closed by a cork. As the exposure progressed, he would pull out the cork and observe the darkening action of the light on the paper, and in that way determine when the exposure was completed. Mr. Ward had seen all the utensils and things Fox Talbot used, on a visit to the latter's son, who is still living. Mr. Ward remarked it was singular that a large percentage of photographic work is made to-day on a flexible material like paper. Following this were pictures of high-speed photography, showing fast trotting horses, high divers, flying bees, hurdle jumpers, and bullets in flight from a gun. Then were shown photomicrograms of the malaria germs in the stomach of a mosquito, and details of the sun and moon nebulæ, how stars are analyzed, beauties of nature, insects, flowers, birds, examples of night photography, the lightning flash, photography in the detection of crime, a photograph of King Edward taken through the eye of a bee, being a multiple photograph; X-ray photographs; other views showing how moving pictures are made, and concluding with examples of photography in natural colors by the Langer three-color method, — these in particular being soft, delicate, and clear, — and finally, specimens of the Lumière autochrome process, the working of which was well explained. Among the examples shown was a portrait of a lady in low neck light blue dress, taken by Miss Murdock, which was especially pleasing because of its softness and delicate tone. At the conclusion, Mr. Ward attempted to develop before the audience the gaslight exposures taken by the flashlight, by dipping a rubber swab in a large graduate of rytol developer, and spreading it over the surface of the exposed sheet. He continued to apply the developer for ten minutes or so, but was obliged to stop for the lack of any sign of an image. The exposure had been too short. He finally exhibited on the screen a negative photograph of the audience taken in the beginning, stating that the positive from the negative had been a failure. He used stand development in making the negative. He was obliged to apologize for some of the shortcomings of the demonstration, stating it was due to the delay in getting a good part of the apparatus through the custom house in time. The Bausch & Lomb Optical Co., through its New York representative, Mr. A. Hanks, supplied the optical projection apparatus. It was the general impression that Mr. Ward had gotten up a simple but interesting science lecture. His theme was that photography in the present age is so simple that it can be used by the masses with success.

American Lantern Slide Interchange. — The annual meeting of the board of managers was held at the rooms of the Camera Club of New York, 121 West 68th Street, corner Broadway, on Wednesday and Thursday evenings, January 12 and 13. Mr. John P. Zenner of Buffalo, N. Y., acted as a substitute for Dr. Carlos E. Cummings, who was unable to attend. The members present were F. C. Beach, of New York; H. R. Terhune, Orange, N. J.; O. C. Reiter, Pittsburg, Pa.; Herbert F. Smith, Syracuse, N. Y.; John P. Zenner, Buffalo, N. Y.

The total number of slides submitted by twenty different clubs was 1904 and those approved were slightly over 1200. The slides were all passed through the club electric arc lantern and projected upon a screen ten feet square, each slide being separately voted upon. The clubs failing to send sets this year were the Denver, (Col.) Club, the Photographic Society of Philadelphia, and the Montclair Camera Club. The latter is reported to have disbanded.

The new additions to the Interchange are the Tacoma (Wash.) Camera Club, the Los Angeles (Cal.) Camera Club, and the Hamilton (Canada) Camera Club. On the annual report the general manager stated that the collection of English slides received from London last fall had been most favorably received wherever shown. Clubs desiring particulars of the Interchange should address F. C. Beach, general manager, 361 Broadway, N. Y.

AMERICAN PHOTOGRAPHY

VOL. IV. MARCH, 1910 No. 3

HOARFROST HERMANN LINCK, WINTERTHUR
Swiss Professional Section, Dresden Exposition

PRACTICAL RETOUCHING FOR AMATEURS

ARTHUR HAMMOND

THE average amateur, if such there be, always seems to fight shy of retouching; he almost invariably regards it as an art that is quite beyond his humble capacity and only to be undertaken by his professional brethren. That is because he does not know how simple it really is. Others, again, despise it and reject with scorn the idea of putting any hand work on the negative to mar its photographic purity. That is because they do not understand it and because they judge of its merits by the atrociously over-retouched and badly retouched specimens sometimes seen in the professional show-case.

There are really very few negatives — that is to say, portrait negatives on which the head is of any size — that would not be greatly improved by a little judicious retouching. Mark well the adjective — judicious. Retouching is necessary on account of the limitations of the plate. We all know how the ordinary, unorthochromatized plate (another splendid adjective!) is affected by color, — how some colors come out too light and others too dark, — and it is because of this that the plate has to be assisted by "that clumsy instrument, the human hand." Yellow and red are non-actinic colors; and therefore any yellows or reds in the subject (also, of course, brown and other colors containing these primaries) is apt to be rendered much darker than it appears to the eye, so that any freckles or blemishes of the skin become greatly exaggerated in a photograph. In the most brilliant complexions there are often small patches of uneven pigmentation, which at a short distance blend into the tone of the skin and are not noticed by the eye, but such patches, if they are large enough to be rendered by photography, do not escape the searching eye of the lens, and are rendered with startling vividness. Of course this failing can be remedied to a great extent by using orthochromatic plates and a ray filter, but such methods are rarely practicable in portraiture on account of the increased exposure demanded by their use. Then, again, any lines or wrinkles in the face, when permanently fixed in a photograph, seem much more noticeable than in real life. The camera does not create these lines and wrinkles; they are really there, but owing to the constantly changing lighting and the varying expressions on the face in nature, we scarcely notice them until they are ruthlessly and mercilessly depicted with unimaginative and mechanical accuracy by the lens and dry plate. Another reason why a little retouching is often wanted is that owing to the high side lighting usually employed under a skylight or an indoor portraiture, the shadows under the eyes and the labial furrow (the shadow from the nose to the corners of the mouth) become unduly accentuated.

Faulty lighting, under-exposure and over-development of the negative, excessive sharpness of definition in focusing, and the use of smooth surface paper for printing all tend to increase the need for retouching, so that a great deal can be done towards lessening this need by paying careful attention to the lighting of the face, by giving a full exposure, by developing carefully to keep the negative soft and thin, and by finally printing on a paper with a matt or even rough surface.

With regard to the question of focusing, it is difficult sometimes to avoid that hard, biting sharpness of definition which is considered one of the greatest merits of the modern high-class anastigmatic lens. Such a lens, excellent as it is for many other purposes, is almost too good for portraiture, and I would strongly advise any photographer possessing such a lens who wishes to excel in portrait work to use only half his lens whenever that is possible. In nearly all rectilinear or symmetrical lenses each combination is sufficiently well corrected to be used alone, and by removing either the front half or the back half and using the other half alone, the worker will find he has an excellent single lens which will give very pleasing, slightly soft, definition over the whole of the plate. In a symmetrical lens each combination is of about double the focal length of the combined lens; and this, again, is a decided advantage in portraiture. It must be remembered, of course, that the half lens will require more camera extension than the whole lens, and that it will necessitate a longer exposure being given; but when the light is good and rapid plates are used, this increased exposure is not a sufficiently serious drawback to outweigh the advantages.

There is another method by which excessive sharpness may often be avoided, and that is by the exercise of tact in dealing with the sitter. Many photographers are apt to unduly impress on the sitter the necessity for keeping still, so much so that the sitter, in trying to carry out instructions, assumes a rigid and wooden attitude and shows plainly by his hard and fixed expression that he is trying to be good. That is not the best way to get natural and pleasing results. It is much better to tell the sitter that he can blink and breathe quite naturally and can do just as he likes as long as he keeps fairly steady during the exposure. A slight change of expression or even very slight movement of the head during the exposure seldom spoils a picture; on the contrary, it

LOST IN THOUGHT A. S. WEINBERG, GRONINGEN
Dutch Professional Section, Dresden Exposition

often improves it by softening the definition, and the unnaturally hard cut-out appearance of a sharply focused picture is avoided by the outlines being very slightly blurred. This movement must not, of course, be overdone, especially in small pictures; but in large, broad effects it is surprising how much of such movement can take place without spoiling the results. In my own work, in doing large heads of small boys who could not keep still, I have often thought, after making the exposure, that my negative would be a "waster," but many such have given me much better results than I had thought possible.

Thus it will be seen that a great deal can be done in the preliminary operations to reduce the need for retouching before any hand work is done on the negative. And all these preliminary operations must have due consideration. It is a mistake to suppose that faulty lighting or unskilful development can be remedied by means of the pencil. The object of retouching is to improve the operator's best work, not to correct his faults.

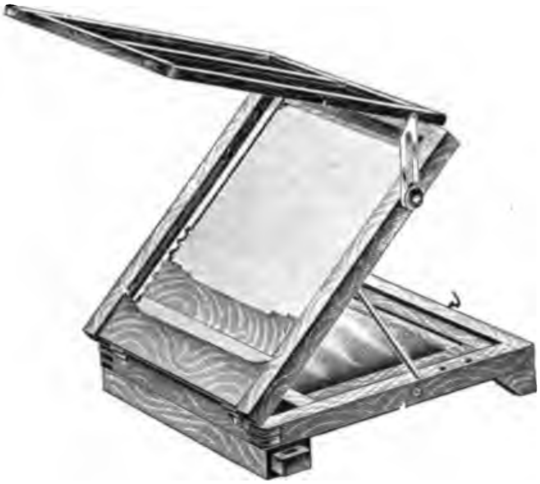


FIG. 1

Seeing, then, how necessary it is to have some knowledge of retouching, it is a pity that amateurs who are keen on portraiture should not avail themselves of its aid. It is not fair to the sitter, nor to the photographer's reputation, to make prints from an unretouched negative if the sitter has many freckles.

Although it takes a considerable amount of study and experience to become a really competent retoucher from the professional point of view, it is not difficult for an amateur to learn enough about it to enable him to greatly improve many of his negatives. The purely mechanical part of the work, the actual manipulation of the pencil, can easily be acquired by anybody, but it is in training the eye to see exactly where the pencil work should be put that some care and practice is necessary.

The materials and apparatus required for the work are not considerable. The first necessity is a retouching desk. This can be purchased from a dealer at prices ranging from $1 upwards, but it would be quite easy for any one who is handy with tools to make one for himself. A typical form of desk is shown in Fig. 1. A similar one can be made of three boards hinged together and supported by struts, as shown in the figure. The middle one has a hole cut in it, over which the negative is laid and through which the light can strike upwards through the negative. The lower board, resting on the table, acts as a reflector, and a piece of white blotting paper laid on this will form an excellent reflecting surface. The object of the third board, the one at the top, is to keep some of the extraneous light out of the worker's eyes, so that the only light he uses is that which is reflected upwards through the negative. Besides the desk, a retouching pencil, a bottle of retouching medium, a small piece of fine sandpaper, and some soft old linen rag are all that are required.

The best sort of pencil to use is a holder with loose leads. The leads are made in six degrees of hardness, No. 1 being the softest and blackest, and No. 6 the hardest. The best to begin with is No. 3. The way to sharpen the pencil is to use fine sandpaper. This can be obtained specially for this purpose, put up in blocks like miniature sketching blocks, but the ordinary household variety can be used just as well. It is very important to get a long, fine point to the pencil, as without this it is impossible to do fine work and it is difficult to see where the lead is being applied. In order to secure such a point, about three inches of the lead should project from the holder, and it should be laid almost flat on the sandpaper and rubbed up and down and from side to side on the sandpaper, turning the pencil all the time, until the point is of almost needle-like sharpness. This must be done very carefully and very gently; no force must be used, or the lead will snap.

THE TORTOISE ATELIER HANNI SCHWARZ, BERLIN

The medium is best applied to the negative with a piece of soft linen. Stretch the linen over the finger tip, moisten it with a touch of the medium, and then rub the medium gently on to the negative with a circular motion of the finger. Rub it in gently and smoothly until it begins to feel tacky. Only a very little medium is required. It should practically just be rubbed on and then rubbed off again; this will leave quite enough on the negative to enable the pencil to "take." The medium need be applied only to those parts of the negative on which retouching is to be done, the face and the hands; but in this case it is necessary to be particularly careful to soften off the edges where the medium leaves off, otherwise these edges might show as marks in the print. Personally, I think it is safer to rub the medium all over the negative when it is a small one, 5 x 7 or under, and then there can be no danger of any marks showing. The medium must be rubbed down quite smooth; there must be no lines or streaks, and it must always be remembered that only a very small quantity is needed.

It is always advisable to take a print from the negative before starting any retouching; and if any chemical treatment is necessary, such as reduction or intensification, it is better to do anything of this sort before the medium is applied. A print is very useful, too, to refer to while the retouching is being done. It is much easier, at any rate until some experience has been gained, to see in a print which are merely freckles and exaggerated lines and which are the shadows that are essential to show the modeling.

(To be continued)

THE BROMOIL PROCESS

A. H. GARNER

THE oil process is probably well known now to the great majority of photographers who read the current literature of photography. It has been fully dealt with by several writers in the press and also by demonstration. This method may be called the daylight or print-out method.

The bromoil process is a method of producing a similar result without the action of light, and is the process *par excellence* for the worker whose daylight leisure is limited. Incidentally there are other advantages. An enlarged negative is not required, as for the oil method, but just a good ordinary bromide print; the wide and ever widening choice of bromide printing papers must satisfy the requirements of the most exacting. The method outlined in this article appears to be adaptable to all bromide papers, but not necessarily to gaslight papers. Different makes of paper require slight variations in treatment to get the best results, because some makers use soft gelatines, some use hard gelatines, and some even appear to use a hardening agent in the emulsion. Personally, I largely use a make which will stand a temperature of 120° of heat and still not melt the emulsion. I have not succeeded in getting bromoil prints on this paper with any method of preparation except my own, which also answers well with Barnet, Wellington, Illingworth, Ilford, and Leto papers.

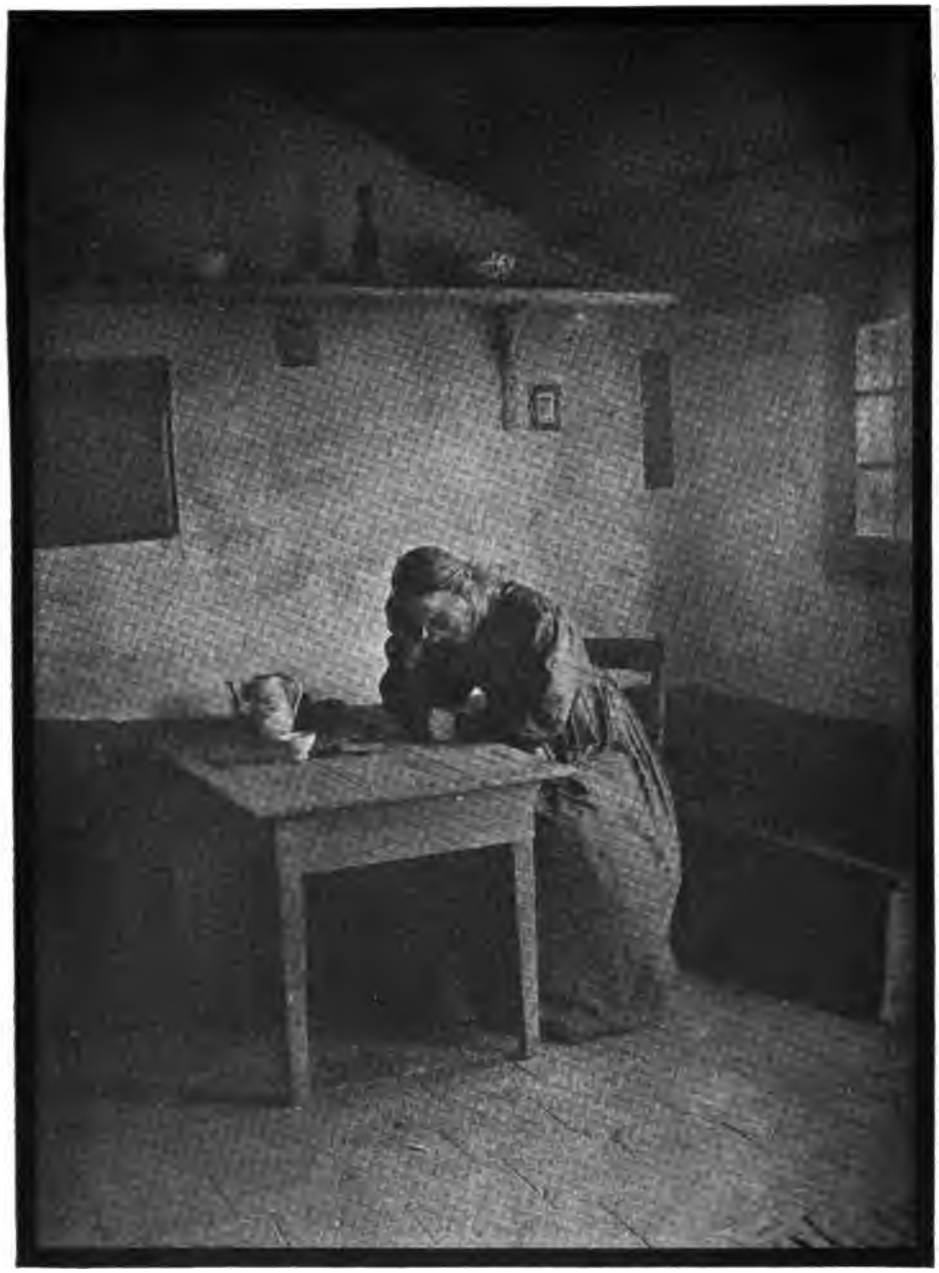
As to the print itself, it goes without saying that the better the print is, the easier it is to get a good result. There seems to be no difficulty in getting at least as good a result as the original silver one, whether this was good, bad, or indifferent. The print should be well developed and harmonious, the high lights somewhat lower in tone than usual, the deep shadows also rather darker than would be called for in a finished bromide print, but not by any means clogged. Leisurely development in a developer under normal strength should give the kind of print wanted. Fog must be avoided, and the print must be well fixed and washed. For fixing, I invariably use plain hypo to which is added about a dram of potassium metabisulphite to the pint.

I have no reason to believe that the actual developing agent matters, by this method. I generally use phenolin (it seems akin to amidol), but I have also used amidol and rodinal frequently, without being able to notice any difference.

The print having been allowed to dry for twenty-four hours, it is soaked in cold water a minute or two while the following bath is prepared. The quantities mentioned will be found to be sufficient for a whole-plate: —

Potassium ferricyanide	2 grains
Potassium bromide	9 grains
Potassium bichromate	9 grains
Ammonia alum	18 grains
Ten per cent hydrochloric acid	20 drops
Water	2 ounces

This is poured into a porcelain dish and the temperature raised to 80°, which should be tested by one of the little glass thermometers which can be bought for a small sum. I warm my dish by holding it over a gas burner. As soon as the temperature has settled down to a steady 80° to 84°, the print is placed in the dish quickly and rocked while bleaching takes place, seeing that the temperature does not drop below 80°. In this bath the image changes in color, becoming a sad colored brown and losing about one half its strength. Two minutes should be sufficient, but four will do no harm. The solution is then poured off, and the print washed for ten minutes in running water or frequent changes. Before this time has elapsed all trace of the solution should have vanished from the print. I attach importance to this thorough washing. Without it results are somewhat uncertain. This and the bleaching at a high temperature are the principal features of the method.



AN INTERIOR
G. MIDDENDORP, HILVERSUM
Dutch Professional Section, Dresden Exposition

At this stage the print already shows some symptoms of relief, more marked in the case of some papers than others, and it would take ink readily enough in this state, although, in general, there would be a tendency for the whites to take up ink also, and so lead to discoloration and flatness.

The next step, then, is to place the print in a 2½ to 5 per cent sulphuric acid bath, at about 65° to 70°. The former is sufficient with soft gelatine papers, the latter will be required with harder gelatines. At higher temperatures — as, for instance, in midsummer — it is necessary to use much weaker baths. This bath performs two functions. It softens the unaffected gelatine, so that the relief becomes more marked and the ink takes and is repelled more vigorously; and secondly, it dissolves out the chromic salts which partly form the image. The time in this bath must be gauged by experience. Two minutes to ten minutes are about the limits. If the bath is poured off and the print is allowed to drain in the dish, one can generally tell by the amount of visible relief whether it has been acted upon sufficiently.

The image changes in this bath. It becomes very faint, and its color changes to a pale yellowish brown. It is then washed in a few changes of water, and immersed in a fixing bath containing a little metabisulphite or even plain sodium sulphite. I generally use the same bath as I use for fixing bromide prints, and have not noticed any ill effects. It is then again washed, and the print is ready for pigmenting in the usual way. The whole procedure should not take more than half an hour.

I have not noticed, so far, that the temperature of the washing or fixing baths affects the final result. On general grounds it would appear advisable to avoid extremes in this respect. Neither, for instance, should approach the freezing point, and the final wash might preferably be in water round about the temperature of the room in which pigmenting was done. Some papers seem to give relief very easily. These appear to be soft gelatine papers. Others show scarcely any relief, but some of my best results have been on prints which showed not a particle of relief, although the image presented the matt and shiny surface with which oil printers are familiar.

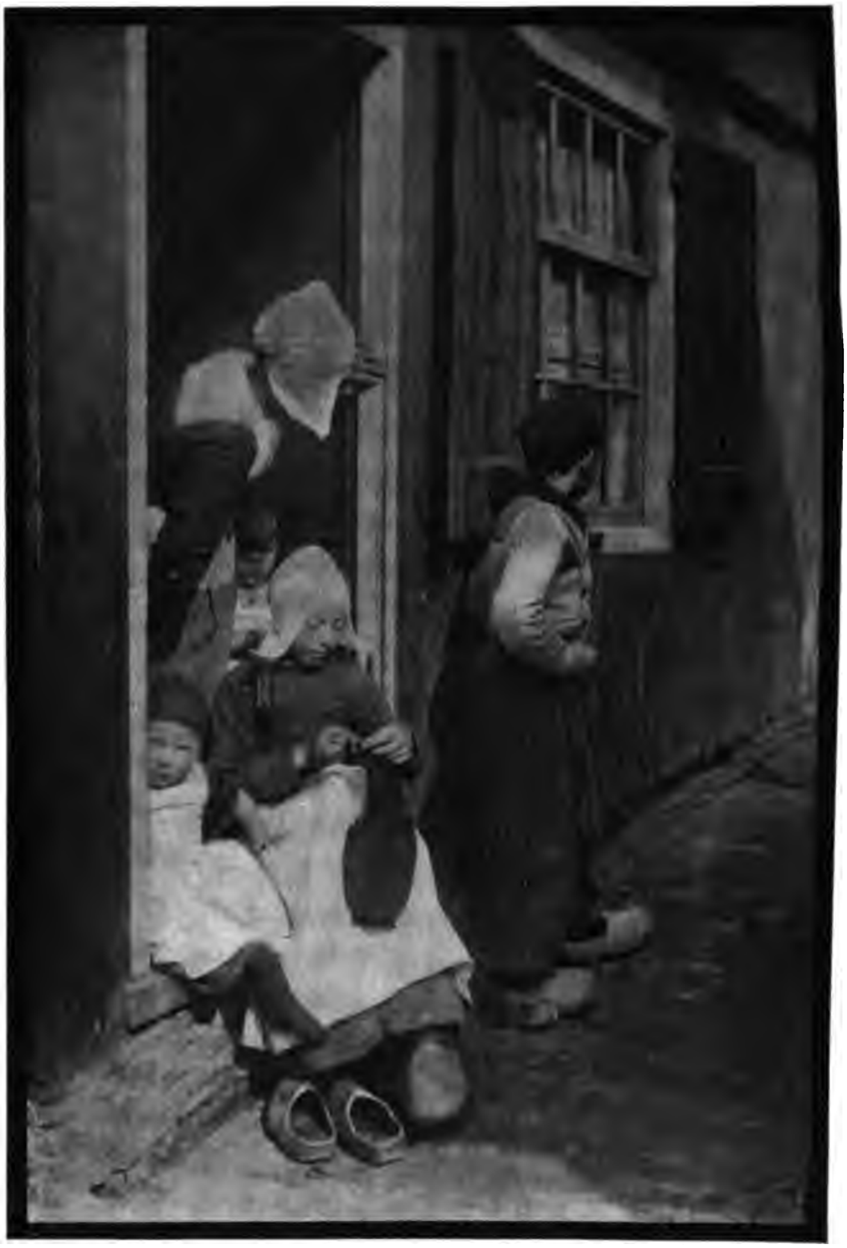
Having described the preparation of a normal print, I propose to offer a few remarks regarding the substances used, my past experiences and experiments. The formula given is one arrived at by experiment. It has formed the starting point for many other experiments, which have yielded interesting results, — results which may point out a better or shorter way later on; but up to the present I have not found a more reliable formula than the one given. It contains five ingredients, and the action of these on the silver print, and on each other, has to be mainly guessed at. So there is evidently a large field for inquiry, improvement, and simplification.

The formula above involves three separate "bleachers." First, potassium ferricyanide and bromide (giving rise to a silver bromide image); second, the same salts with the addition of potassium bichromate (giving rise to an image containing silver chromate); and third, potassium bichromate and hydrochloric acid, a mixture which will also bleach the image.

It is the second process of bleaching which tells in the bromoil process, because chemical action this way not only bleaches the image, but also tans the gelatine in proportion to the amount of the silver deposit. I venture the theory that the ferricyanide and bromide convert the silver image into nascent silver bromide, which is further converted into silver chromate, and the oxygen set free by the reduced bichromate is what tans the gelatine. As a matter of fact, if the alum and hydrochloric acid be omitted the resulting image will take the ink, but very sparingly.

If the alum be now added the effect is very marked. Bleaching in the deepest shadows goes on very, very slowly, or even stops short altogether, while the capacity of the image for taking ink is intensified greatly, so much so that the deepest shadows tend to reversal or even become quite reversed.

I have used some soft gelatine papers, which have given quite satisfactory results with only these four ingredients, but the whites have always shown some tendency to discoloration. If a little of the ten per cent hydrochloric acid be now added, it manifests itself in the following ways: —



CURIOSITY
W. J. VAN ZANEN, GOUDA
Dutch Professional Section, Dresden Exposition

1. It makes the bleaching quicker.
2. It raises the key of the whole print, thus — (*a*) keeping the whites pure; (*b*) tending to prevent reversal.

Five drops of the acid solution to the ounce is sufficient for a soft gelatine paper, while as much as twenty drops may be used with the hardest. If any particular paper, under normal treatment, seems too prone to take the ink, and works stiffly in consequence, an increase in the acid will put this right. Further, a soft or weak, delicate print is best bleached with the minimum of acid, while an over-dense one can be done with the maximum. I have found the acid addition to be a very potent regulator.

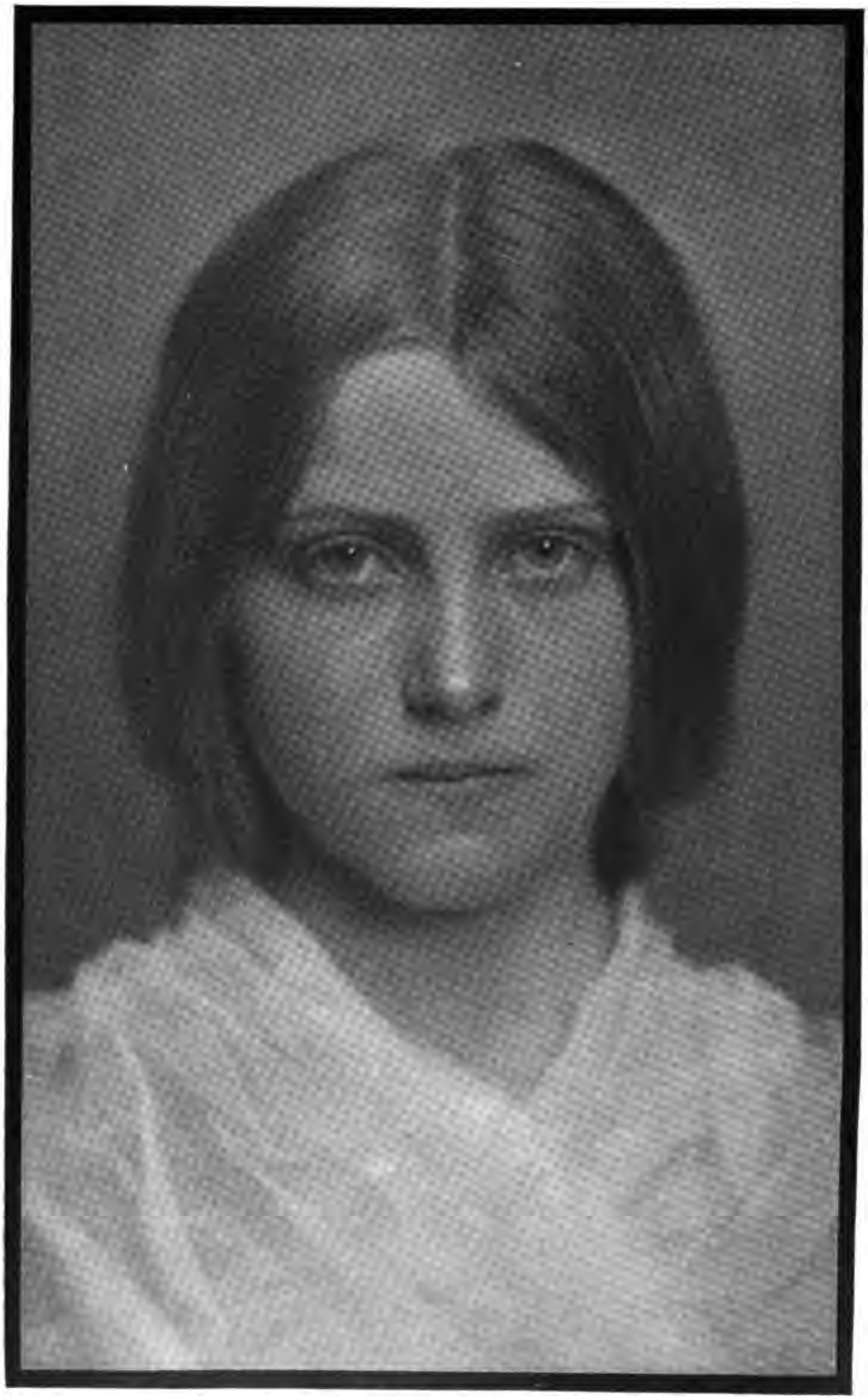
It will be noticed that the formula includes ammonia alum, but ordinary potash alum would probably do as well. The first named, however, is a cleaner salt, being in nice white crystals like sodium sulphite.

The temperature of the bleaching bath may appear extraordinary to some. I myself do not understand why bleaching at such a high temperature is requisite, but it is so. I can only assume that the higher temperature in some way favors the particular chemical action which is essential to success; viz., the reduction of potassium bichromate by the silver image and the proportionate tanning of the gelatine. At a lower temperature — say, 60° to 65° — the image is certainly bleached, but the final result, from the bromoil point of view, is quite different and greatly inferior. Some hard gelatine papers appear to do best at even higher temperatures, especially if there are no very deep shadows. If there are, then a high temperature — say, 90° to 100° — may cause reversal in them. In fact, too much heat (or too little acid) acts in a manner very analogous to too much light, namely, reversal sets in at a point.

The thorough washing after bleaching is important. It tends to help the formation of relief, besides which any solution left in the print appears to have a hardening tendency, in conjunction with the acid bath which follows. This latter bath (the sulphuric acid), if made up fresh (as is advisable), should be left to cool, as the addition of the acid to the water sends up the temperature considerably. The keeping value of these solutions, or, at least, the bleaching solution, is a point worth considering. I had fully expected that the same would keep indefinitely, but there seems some reason to doubt whether it will. The matter is in the experimental stage, and, pending this, I always make up fresh solution for each print. The formula given, omitting the acid, would probably keep well. Can some reader, more experienced in chemistry, confirm this?

The process outlined above, if carefully adhered to, will turn out uniformly good results. The ink takes gradually and uniformly, the image can be built up to any degree of strength, and any part can be lightened of its load of ink by gentle "hopping," without in any way spoiling the surface, which is quite durable, and will stand vigorous action with a stiff brush. The whites repel with ease, and delicate gradations are retained, except, possibly, in the very high lights.

These will require care and skill to bring out, they are so exceedingly delicate, and the difference in sensitiveness to ink of the gelatine surface is so minute. Personally I do not think that the oil process unaided will ever be able to compete with the matchless perfection of gradation shown in the highest lights by a good bromide or platinum print. Neither is such perfection requisite for pictorial effect, where suggestion plays so important a part. But, supposing that a bromide print intended for bromoil should possess a very delicate sky or clouds, which it was desirable to retain in all their delicacy, this could be done in the following way: After bleaching and washing, the print is placed in a very weak, slow-acting developer, such as would take perhaps fifteen minutes to redevelop the print fully. This will slightly redevelop the print, and bring out just those faint delicacies which oil printing would lose. The developer is poured off, and the print washed and completed as for bromoil, and inked up as usual. The ink should preferably be a black, but the deposit is so slight and colorless that it will scarcely show anyway. — *Photography.*



PORTRAIT
P. CLAUSING, JR. HAARLEM
Dutch Professional Section, Dresden Exposition

THE ADVANTAGES OF THE ANASTIGMAT

CHESTER F. STILES

FROM time to time we are asked to point out and explain the advantages of the anastigmat lens. This question sometimes comes from a disappointed purchaser who is not satisfied with the achievements of the lens after his first few trials, sometimes from the prospective purchaser.

The amateur (and the professional as well) fails to appreciate the main points of difference between the rapid rectilinear — the typical ordinary lens — and the modern anastigmatic combinations. In these latter, speed is the most striking advantage gained, because a cheaper lens stopped down is automatically corrected and made more perfect, so that it will give negatives of finer definition.

If we wish to demonstrate the difference between the old and new types of lenses, we can do so by photographing a flat surface, such as a bill board covered with lettering. If the rapid rectilinear is used wide open, the corners of the negative will be out of focus when the center is sharp, or *vice versa*. No position can be found that will give satisfactory definition all over the plate. This is because the field of the lens is curved, like a saucer, and the plate receiving the image is a plane. If the lens is stopped down, the corners will then become sharp. It is of course assumed that the image of the board nearly fills the plate when the test is made, and that the size of plate used is the one for which the lens is listed.

The anastigmat will, however, give an image of the board of equal sharpness all over when the lens is used at its largest opening. This means in practice a very great gain in speed, for the exposure at, say, f. 6, will be only a seventh or an eighth of that necessary for the rectilinear, which must be stopped down to give sharpness all over.

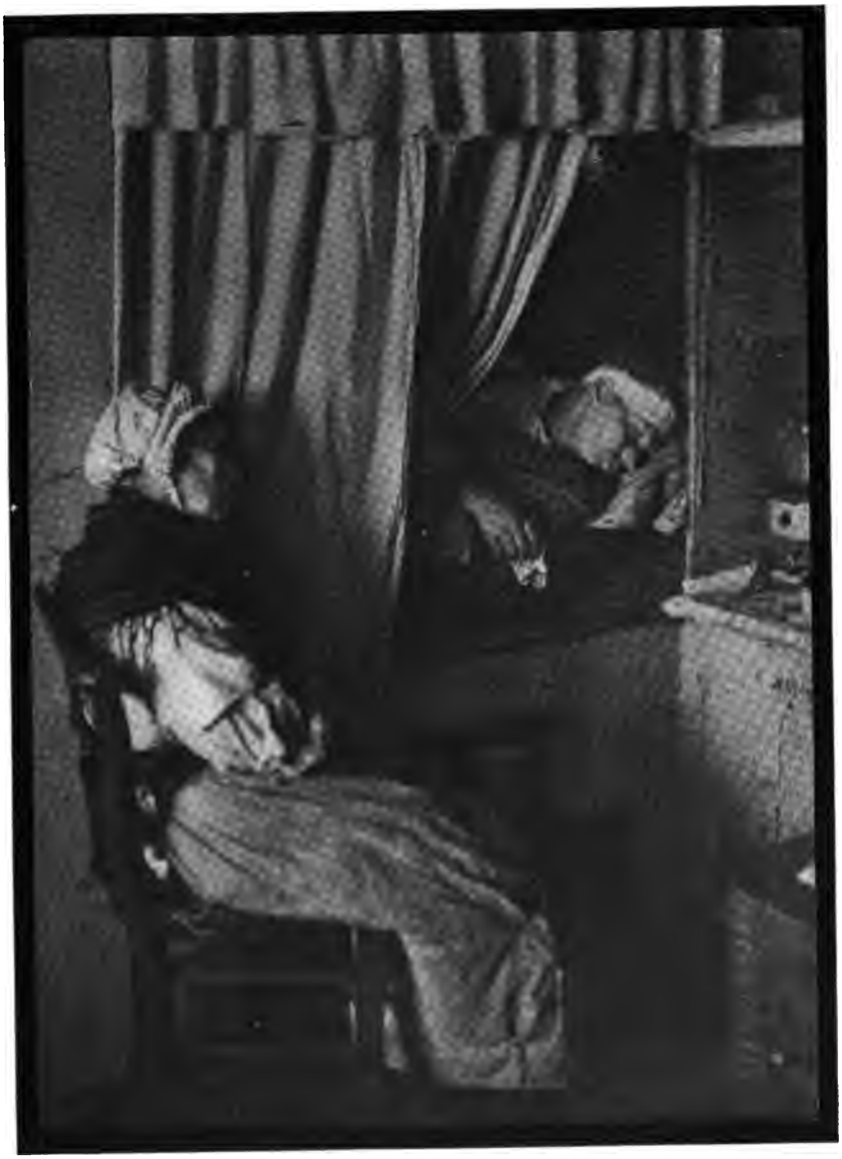
Stopping down a lens corrects the optical defects in only a negative manner. That is, the marginal rays of light from a given point in the negative are prevented from reaching the plate, where they would produce a blur instead of coming to a proper focus. In the anastigmat, every ray of light is made to do some work in the production of the image, and all rays are bent so that they must come to focus correctly on the plane of the plate and need not be thrown away by stopping down.

Now in taking a group we have a condition approximating the bill board test. Our subjects are arranged in rows. If a group arranged in a single row is taken as an example, we must stop down to insure the end figures being in focus, or else we form our group in the arc of a circle. In case we correct (with loss of speed) by stopping down the lens, we get distorted end figures. This is real distortion and should not be confused with the so-called distortion of short focus lenses, which is merely the exaggerated perspective.

It is much more convenient to work to a straight line than to a curve in arranging groups. The anastigmat will define the whole line of figures sharply from end to end. In case the lens is quite short in focus, we should take care that the end figures do not look straight ahead like the central figures, because the lens will otherwise show a partly side view.

When two or more rows are included we meet a new problem. If we focus on the front row, the back row is out of focus, and *vice versa*. This is due to the fact that depth is regulated by the diaphragm. In other words, no manufacturer can claim any superiority over another in depth unless he compares a short focus lens of his own with a long focus one of his rival. We therefore stop down the lens, focusing on an intermediate point between the front and back rows.

The diaphragming down of the lens in the case of the anastigmat is much less than with the rapid rectilinear. When a sufficient depth of field is attained, no further stopping is necessary with the anastigmat. The rapid rectilinear will probably need a much smaller aperture in order to correct the corner definition, although the depth in the center may be satisfactory.



MISERY AND POVERTY
J. HUYSEN, AMSTERDAM
Dutch Professional Section, Dresden Exposition

Practical photographers will at once see the advantage of large stops in lenses with good definition, for the special purpose of making flash-lights. Obviously the less light necessary, the less the cost of flash powder, the less the danger of fire and the less smoke produced.

In photographing a building, it sometimes happens that the stopping down of a rapid rectilinear in order to gain marginal definition is so great that very distant objects are also sharply defined. This is a positive objection, for the attention of the observer is diverted from the principal object of interest. In the anastigmat the distant planes will be softly defined, if the diaphragm be used simply to attain the depth of field necessary to give good definition of the principal object.

There are a few cases where the curved field of the rapid rectilinear is an advantage. When used to portray a street scene looking down the street, or an angle in a public square, it gives sharp edges, due to the fact that the general disposition of the subject itself fits the field of the lens.

If the object of the photographer is to produce a landscape with every visible object sharp and the whole plate rich with minute detail, the anastigmat should be focused on the hyperfocal distance. This is the condition which obtains when photographs for reproduction are wanted. At the risk of being called technical, we will describe how hyperfocal distance is computed. Focus on the extreme distance, with the lens wide open. Note the nearest point in focus. The distance in the field from infinite distance to the hyperfocal point will be the depth of field, and the distance from the hyperfocal point to the camera will be the hyperfocal distance. At equal apertures, the longer the focus the greater the hyperfocal distance, or with lenses of equal focal length, the smaller the stop, the smaller the hyperfocal distance.

If the hyperfocal point be focused on, leaving distance out of the question, it will now be possible to have sharp all objects beyond one half the hyperfocal distance from the lens up to extreme distance. A little thought will show that it may be possible for a short focus lens at a large opening to have more planes in focus, *i.e.*, more depth of field, than a long focus lens stopped down. It will show also that fixed focus or universal focus will be approximated when the focal length is reduced to such an extent that distance and foreground images fall practically on the same plane.

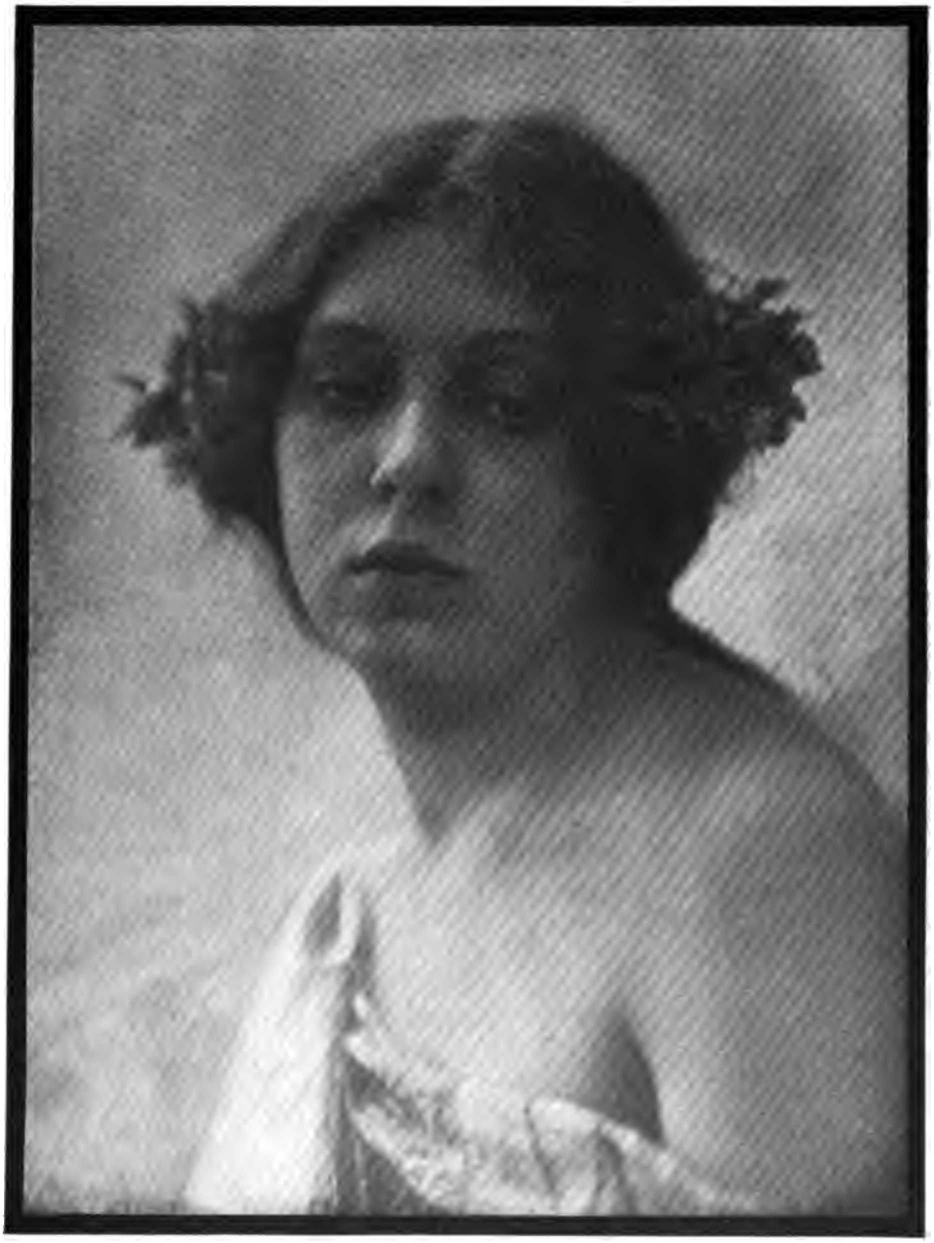
The formula for the nearest point in focus at the same time as distant objects (the figure usually given in tables for focusing) is as follows: $x = 100 f^2 \div 12 a$, where f = equivalent focus in inches, and a the focal ratio number, such as 6.3, 16, etc., (on the F scale). The formula assumes that the circle of confusion, *i.e.*, the diameter of the minute circle in the image which represents a point in the object, is not over 1-100 of an inch. For greater accuracy, as in negatives intended for enlargement or lantern projection, the formula becomes $200 f^2 \div 12 a$, $400 f^2 \div 12 a$, etc., according to the confusion circle taken as a standard.

The results of these figures are given below for various focus lenses and various stops:—

Focus in inches	f.4	f.5.6	f.6.3	f.8	f.11.3	f.12.5	f.16	f.22.6	f.25	f.32
3	19	14	12	9.7	6.9	6.3	4.9	3.6	3.3	2.6
4	34	24	21.5	17	12	11	8.7	6.3	5.6	4.5
5	53	36	34	26	18	17	13	9.3	8.8	6.9
6	75	54	43	38	27	24	18	14	12	10
7	103	74	65	52	37	33	26	19	17	13
8	134	96	85	67	48	43	34	25	22	17
10	209	149	134	105	75	68	53	38	34	27

The table shows that anastigmat lenses need stopping down if universal focus in a landscape is required. In fact, if a very long focus lens be used and the light conditions are abnormally poor, it might be better procedure to use a smaller camera with a good short focus anastigmat wide open, thus gaining depth of field without sacrificing speed, and afterward enlarging the resulting negative.

The focal length of an anastigmat is an important consideration, especially in group work. The shorter the focus the greater the depth of field, but naturally this gives large front row images and tiny back rows. The longer focus lens is of course slower, but the images in various rows



PORTRAIT STUDY
RICHARD PECH, TEPLITZ-SCHÖNAU
Austrian House, Dresden Exposition

are more equal in size. By careful focusing, the long focus lens can be used with great success, and the pictures being more natural appeal to the customers, and sell better. The best advice that can be given in this line is to use the longest focus lens your space will permit.

For enlargement work, the anastigmat is naturally adaptable on account of its flat field. Its office here is to project a perfectly flat image on a perfectly flat field. In copying a new feature presents itself. The lens which is ordinarily used to make a 5 x 7 plate will cover an 8 x 10 plate if used for full size copies, for the camera extension is doubled as well as the distance from lens to object being copied. The ratio of reduction in copying or of enlargement in the enlargement process is a small one, as 1 to 1 in same size, ⅓, ¼, ⅛, etc., in copying on reduced scale, or 8 to 1, etc., on enlargements. We should remember that ordinary negative making demands great ratios of reduction, such as 200 to 1, and where a lens is intended for copying or enlarging mainly, it is wise to get one which is corrected and adjusted for these small ratios. It is interesting to note that the opticians have calculated so accurately that the most markedly unsymmetrical lenses will satisfy the conditions of rectilinearity and show no marked distortion when used in copying.

In telephotography, the magnified image contains the errors of the positive lens multiplied by the magnification used. Consequently we need a high intensity objective combined with the telephoto lens itself. As telephotography is concerned mainly with very distant objects, and no very near foreground is included, the lens does not need to be stopped down much to improve sharpness. It is more important to have perfection in the defining power of the lenses themselves. The main difficulty in telephotography seems to be vibration, which will be very evident on the longer exposures necessary, for it must be remembered that the telephoto is really a substitute for a very long focus lens — a 10-inch lens with 8 power telephoto being really an 80-inch focus objective. The second difficulty is the fact that most distance appears blue to the eye and the problem is to reproduce gradation in blues, which demands color-sensitive plates, color screens and increased exposure.

In portraiture, the older types of portrait lenses hold their own against the anastigmat. The brilliant central illumination of the portrait types and the vignetting away of the edges common to them seem to fit the head and bust effects which form the bulk of photographic portraiture. Anastigmats with diffusing devices, by which the adjustment of various parts of the lens is controlled, give very similar effects, with the added advantage that when adjusted for anastigmatic definition, a standing figure is easily made without undue stopping down. A true portrait lens needs tremendous stopping down for standing figures unless at a distance, whereas the anastigmat does not. The photographer with a diffusing anastigmat thus obtains a universal lens suitable for busts, three-quarters, full lengths, and groups.

In direct opposition to the anastigmat with its elaborate corrections is the anachromat of Darlot,— known as the Puyo-Pulligny Lens, and the Meniscus Portrait Lenses of Gundlach. These lenses have a great diffusion of focus and are sought after for very soft portrait effects.

While a good optical equipment is an excellent investment and can be used upon a modest and simple camera box, its performance in testing and in practice is affected by the accuracy of the camera box itself. Many a fine lens has been condemned by the prospective purchaser because his camera is not rigid nor accurate enough for the precision of the new lens. The faster the lens the more important this factor becomes. A heavy lens on a light front standard may cause the standard to tip forward, the plate holder may not register perfectly with the plane of the ground glass, or the swing-back may have too much play. Any cause which contributes towards throwing the plate out of parallelism with the lens flange is fatal to proper working of the lens. To put the problem in another way, the axis of the lens must be at all times exactly perpendicular to the plane of the plate. This accuracy of mounting is of particular importance in reflecting cameras which are worked mainly at large apertures.

PORTRAIT HELENA GOUDE, THE HAGU

Dutch Professional Section, Dresden Exposition

The anastigmat is used in the many delicate tasks of photography in connection with science and industry. For star mapping the Series V Cooke seems to be a prime favorite, on account of its ability to give stars as points on the plate without coma effects. In photomicrography special lenses, such as Micro Tessar and Micro Planar, are substituted for the regular microscope lenses for many effects. In spectrum photography, where the absorption of ultra-violet light is a disadvantage, special lenses made of quartz have been used which will pass this invisible light. In color photography and in tri-chromatic printing processes, special Apochromatic lenses are necessary, which bring not only the yellow and blue together at the same focus on the plate, but the red as well. This gives a practical advantage in producing all the printing blocks for the various colors the same size, which saves retouching expenses later. Many other uses are known, but we allude to these few merely to show the adaptability of the anastigmat to the most trying conditions.

GRACE MAUD P. KIMBALL, BOSTON

A few words in closing in reference to speed of lenses. We often hear an enthusiastic photographer boasting of the speed of his lens when stopped down, by which he made an over-exposure. Practically speaking, the rapidity of a lens varies only with the stop used, barring, of course, the possibility of a lens with discolored cement which would naturally slow the exposures. To be more specific, the $100 anastigmat stopped down to f. 16 is no more rapid than the cheap hand camera lens at the same aperture. But the anastigmat at a large opening still gives sharp pictures, whereas the cheap lens fails to cover the plate under the same conditions, and from this fact we say that our lens has a speed of f. 6.8, f. 5.6, f. 4.5, as the case may be. This reserve power in the anastigmat is of unestimable value and permits the use of the lens under light conditions that the cheap lens can never overcome. In making these comparisons, the reader is warned against confusing uniform system lens markings with the F values discussed in this article, remembering that f. 4 is double f. 5.6, which in turn is twice f. 8, the complete series with U. S. equivalents being given below.

F values	4	5.6	8	11.3	16	22.6	32	45.2	64
U. S. numbers	1	2	4	8	16	32	64	128	256

HOW TO MAKE A REFLECTING CAMERA

E. H. WILLIAMSON, JR.

THE use of the reflecting camera is becoming more general every day among amateur photographers, as its great convenience and efficiency are better appreciated.

It is adapted not only for speed work but for street scenes and genre, and even for landscapes, as the non-inverted image is easier to compose. Unfortunately for the average amateur, the high prices asked for modern reflectors put them beyond the reach of many to whom photography is merely a pastime. However, it is possible for one who combines some knowledge of the use of tools with a little mechanical ingenuity, to build for himself a practical and satisfactory reflector, as follows: I will assume that the reader owns an ordinary folding camera, fitted with a detachable reversible back, and with a lens of not less than 6-inch focus. There is a shallow rebate on this back, usually 5¾ inches square, fitting into the camera box, and the dimensions given in the following description are based on the assumption of a rebate of this size, although slight differences can be easily adjusted in construction of the camera. Figure (1) shows a sectional view of the interior of the camera, (a) being the reversible back fitted to the camera box (b). This is constructed of any convenient soft wood, such as white pine, ½ inch thick, and it is advisable to put it together with screws. The side pieces are 9 inches long by 7 inches high, the bottom being 9 inches long and the same width as the rebate of the back.

At the upper rear end of the box is set the crosspiece (c), 1¼ inches deep by ⅝ inch wide. Next to this is the frame (d) of ½ inch stuff, 4¾ inches long, 2 inches deep, and the same width as the box, between the sides. A top board extends from the frame to the front of the box.

The mirror (e) which reflects the image from the lens is supported on a swinging board (f), 5½ inches long by 4½ inches wide. This is hinged to the lower rear edge of the frame (d) and a strip of thin black leather is glued along the upper edge of the mirror and to the frame, to act as

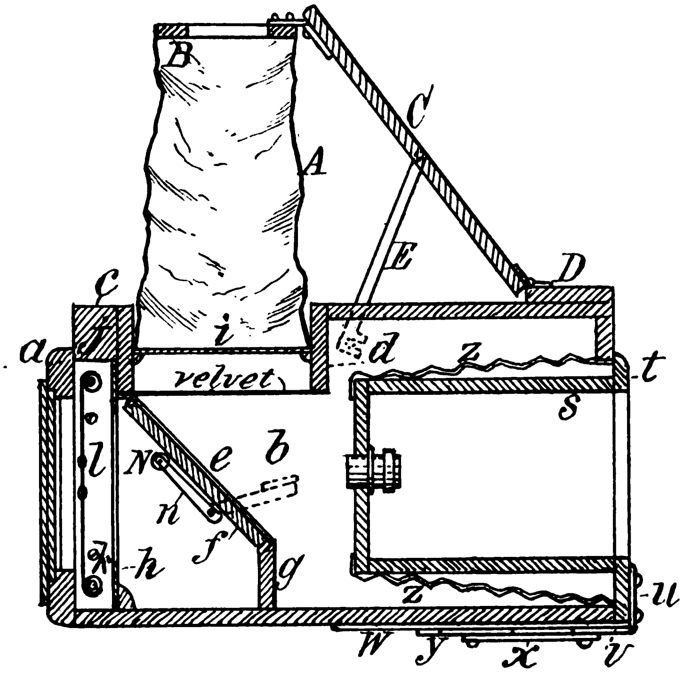


FIG. 1

a light trap. The lower edges of the frame are faced with strips of black velvet for the same purpose. The mirror is arranged to hang at an angle of 45° supported on the crosspiece (g) which is 1⅝ inches high.

A piece of heavy stiff card mount (h) 6 inches high by 5¾ inches wide has a 4 x 5 horizontal opening cut in the center, and is then set perpendicularly in the box, the upper edge resting against the frame (d) and the lower against a cleat on the bottom board. The ground glass (i) is 5¼ inches long by 4¼ inches wide, and rests on cleats within the frame (d) about 1¼ inches below the top. Its position is not permanently fixed until the camera is finally tested. A curtain shutter of the focal plane type is now to be fitted into the space between the partition (h) and the back of the box. It is made on the same lines as the lens curtain shutter described in the October number of AMERICAN PHOTOGRAPHY. The upper roller (j) is of thin brass tube ⅜ inch outside diameter, it is 5¾ inches long, and revolves on a shaft of ⅛ inch round brass rod 6½ inches long, and is fastened concentrically to the latter by wrapping the rod with one layer of No. 10 copper wire, over which the tube is slipped and all three well sweated with solder. The lower roller (k) is the same length as the upper and contains a spiral spring 5 inches long of No. 22 steel wire wrapped around the shaft and fastened in holes drilled in both shaft and tube. The length of the lower shaft is 6¼ inches. The shafts revolve in holes drilled in perpendicular brass strips (l), ⅜ inch wide, 5½ inches long, screwed to the sides of the box. The holes are ⅜ inch from the ends of the strips.

The curtains are of thin black "skiver" leather, 8 inches long by 5½ inches wide, one end is wrapped and glued for two turns around the rollers, the other folded and glued over strips of 1-32d inch brass, ⅛ inch wide and a trifle over 5½ inches long.

A small hole is drilled at each end of the strips, and a piece of fine braided fish-line 4½ inches long is tied at one end of the upper bar. A similar piece is tied to the opposite end of the lower bar. The loose ends are then passed through the holes in the opposite bars and attached to little clips of spring brass ½ inch long which fold over and grip the bars. By sliding these clips in opposite directions, more or less of the cord is pulled through and the ends of the curtains drawn together or separated.

Figure (2) shows the details clearly. The left hand ends of both roller shafts project through the side of the box, the upper one to a distance of ⅝ inch, the lower ⅜ inch. Each is fitted with a small toothed wheel, such as can be purchased from a gear manufacturer, ½ inch diameter, ¼ inch face, and the central holes are reamed out to make an easy driving fit over the ends of the shafts, both being driven on to within 1-16th inch of the side of the box. Figure (3) shows the details of the mechanism controlling the mirror and shutter release. The operating lever (m) made of 3-16th inch square bar, is attached with a machine screw to a short shaft of ⅛ inch rod, passing

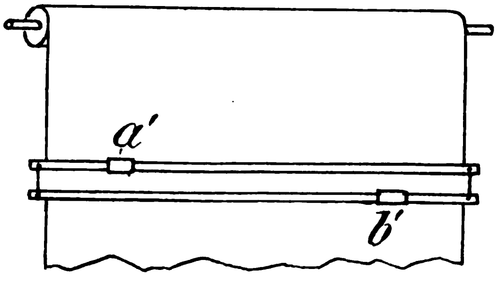


FIG. 2

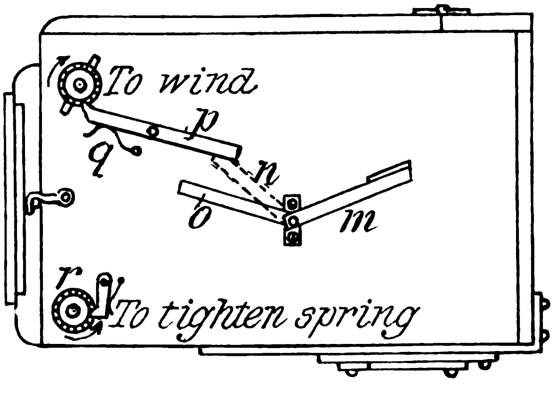


FIG. 3

A HEAVY SEA OFF HELIGOLAND F. SCHENSKY, HELIGOLAND
German Professional Section, Dresden Exposition

through the side of the box and supported in two brass plates screwed to the latter, one on each side of the wall of the box. Soldered to the inner end of the shaft is an arm (n) having a roller wheel (n^1) secured at its outer end, so placed as to bear against the under side of the mirror board or support (f), Fig. 1.

To the rear or lower end of the operating lever (m) is soldered an extension lever (o) which projects upward at an angle to lever (m) to be brought in contact with the lower end of the pawl release lever (p), the latter having a V-shaped pawl formed at its upper end to engage and lock the ratchet gear on the end of the upper curtain shutter shaft. Lever (p) is held against the ratchet gear by the spring (q). The length of the levers (m), (n), (o), and (p) is about 2 inches, but should be accurately determined by experiment, as well as the angles at which they are set. The inner lever (n) should be arranged so as to push the mirror up against the frame (d), when (n) is in a perpendicular position. The lever (o) should then be in contact with the lower end of (p) and a slight further pressure downward on the operating lever (m) releases the shutter. The lower gear on the end of the curtain shutter spring winding shaft is locked by a small spring actuated pawl (r) so that when the gear is revolved in the direction of the arrow, the shutter spring can be tightened.

In Fig. 1 at the right is the lens supporting adjustable box (s) capable of being moved out or inward. The box (s) is 4 inches wide, 4 inches high, and 3 inches deep, and has an open front end. In the rear partition a round hole is cut to receive the back of the lens, and the shutter flange is screwed over the hole. The box is supported on a front board (t) 6½ inches wide by 6½ inches high, with an opening the same size as the box. This is closed with a small door (not shown in the cut) hinged at the bottom and held with a latch hook.

The front board is firmly secured by screws to the upper leg of a right-angled piece of 1-16th inch brass (u) ¾ inch wide (Fig. 4). The lower leg is soldered to a 1 inch wide brass strip (v), 5 inches long, with beveled edges, which slides between two similarly beveled strips (w) (w^1), ⅜ inch wide, 5 inches long, screwed to the bottom of the camera. A short brass link (x) connects the slide (v) to a focusing lever (y), 6 inches long, pivoted at the left side of the bottom. The arrangement is shown in detail in Fig. 4. In place of using a bellows to connect the lens box and camera, a strip of the same thin black leather used for the curtains is glued to the rear outside edges of the lens box and to the front of the camera box, as shown at (z) Fig. 1.

The focusing hood (A) is 7 inches high and is made of a piece of focusing cloth, the rubber lined style. The lower end is to be tacked and glued to the interior of the frame (d) close to the ground glass. At the top is a wooden frame (B), 3 inches wide by 4 inches long, with a 2 x 3 inch rectangular opening. A brass angle strip is screwed to the frame and the lower leg rests in a socket on the under face of the camera lid which is 6½ inches long by 6¼ inches wide and is hinged to a cross strip 2¼ inches wide.

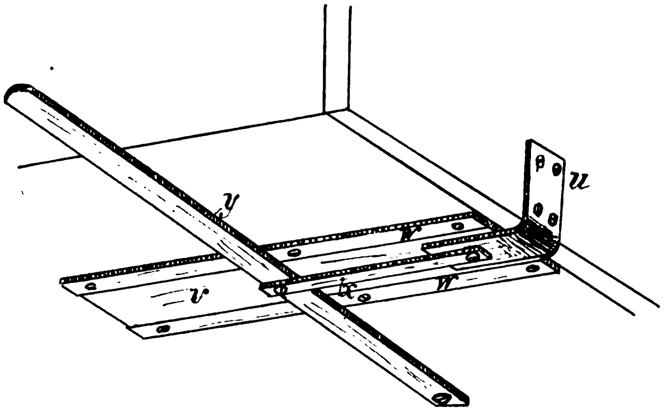


FIG. 4

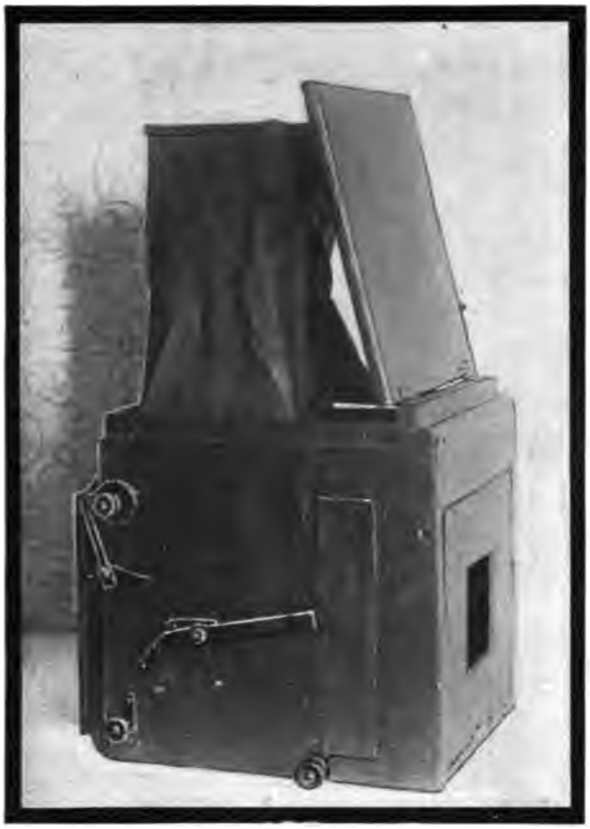
The lid is held up by the arm (E) pivoted to the left side, the lower end being notched to slip over a screw in the side of the box, as shown.

The whole interior of the box is painted with flat black varnish, which dries dull, and all joints in the woodwork as well as the bellows (z) are examined carefully for light leaks. Any found are stopped with strips of black paper glued on, or with leather in the case of the bellows. The outside of the camera may be covered with thin black grain leather to make a neat finish. Before attaching the focusing hood it will be necessary to find the correct position of the upper ground glass, as follows: The camera back is fastened in place with small hooks over screws in the back. If the back does not fit perfectly against the box the rear edges of the latter are faced with strips of black velvet. The back being in place, turn the lens toward an open window giving a well lit distant view, raise the mirror with the finger lever, and move the focusing lever until the view is sharp on the lower glass. Now drop the mirror and adjust the upper ground glass up or down until the view is sharp there also. The glass is then permanently fixed in this position. The camera is now turned to some well lighted object a few feet away, and if the camera has been constructed according to the directions, this also will be found sharply defined in both glasses. A somewhat neater arrangement for the shutter release can be used if the width of the camera is increased by ½ inch on both sides.

A PORTRAIT
C. PUYO, PARIS
Made with a Puyo Studio Anachromat

This will allow the upper gear and the lever arms (o) and (p) being placed within the camera, only the finger lever showing. This will of course necessitate an increase of 1 inch in the length of both roller shafts also. I should have stated before that the curtain is wound up by a key on the upper shaft. This may be made from the winding key of an alarm clock, reamed out to fit and soldered on. The operation of the camera is as follows: The curtain slit is set at the desired width by sliding the clips along the edges, as described, the curtain is wound up to the top, and the focusing hood erected. A loaded plate holder is slipped into the back, the dark slide drawn and the desired picture is viewed and composed on the upper ground glass, where it will appear right side up. The proper focus is obtained by moving the lever, and when all is satisfactory the operating lever (m) is pressed down, throwing the mirror up out of the way and releasing the shutter.

If carefully made this instrument will do thoroughly satisfactory work, comparing favorably with expensive factory-made apparatus.



THE COMPLETED CAMERA

The photograph shows a camera made by the author, on similar lines to the one described, except that a regular rack and pinion was substituted for the lever for focusing. This camera was used for two years with great satisfaction.

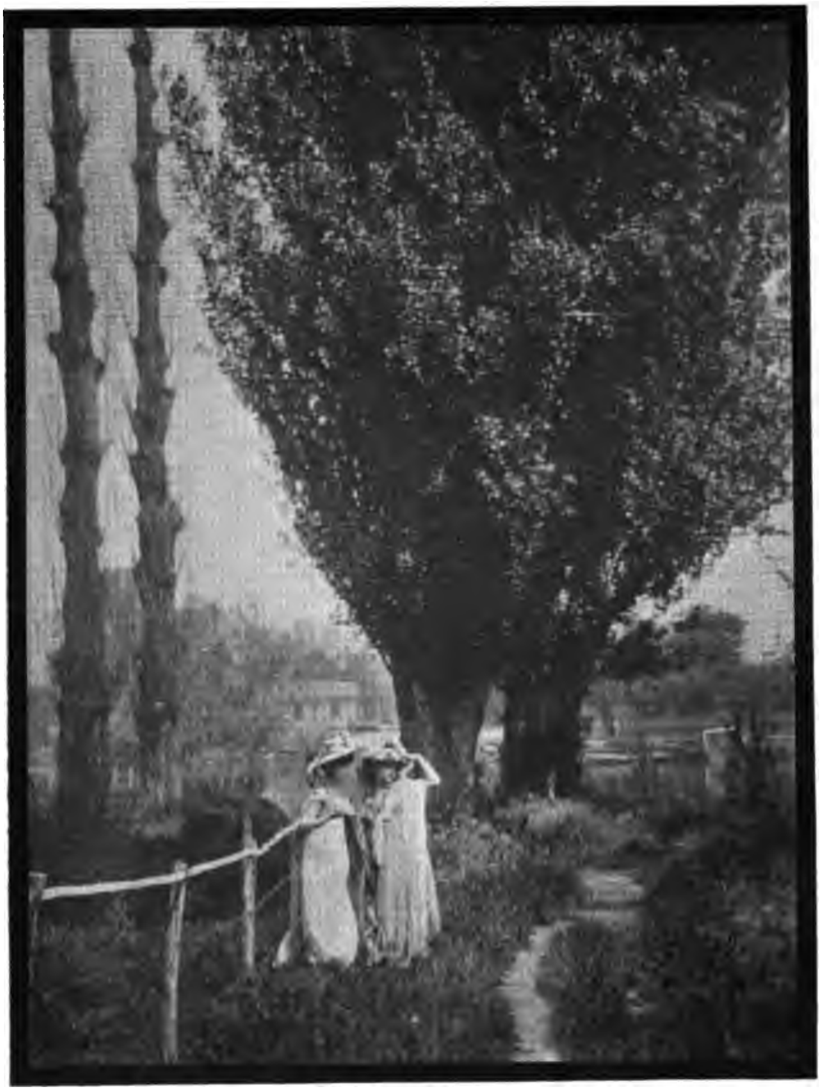
SOME BEGINNERS' TROUBLES

J. CLARENCE NORTON

WHAT I am going to relate about "Some Beginners' Troubles," or, more properly speaking, "Some Troubles of a Beginner," will not be of any value to the professional, but to the hundreds of those who are thinking of taking up photography, this article will be of utility.

During the summer of 1908 my family returned home from a visit to my wife's father and brought home many kodak views of their pleasures there. My wife said we ought to have a camera. In May, 1909, my sister-in-law visited us and brought the little kodak with her. The many excellent views taken by her convinced me that I should get a camera at once. Now, I want to impress on my readers the fact that I did not know the slightest thing about cameras or photography.

I knew that a negative was a treated plate, and that a lens was the eye of the camera, and that is all I did know. The nearest photographer was ten miles away, and I did not go to the town he was in more than once a year. I did not know there was a great journal like AMERICAN PHOTOG-



A LANDSCAPE
C. PUYO, PARIS
Made with Puyo-Pulligny Adjustable Landscape Lens

RAPHY. In fact it is impossible to conceive of one more ignorant of the craft than I was, and my many blunders, which finally led on to success, will be of value to any beginner.

The views taken by my sister-in-law were taken from here (Kansas) back to St. Louis, and there developed and printed, so I had no chance to learn anything from her; yet in spite of no help or advice, except the meagre instructions that came with the camera in July, I had by November printed and sold fourteen gross of post-cards at seventy-five cents per dozen, or over $125, and had a gross for myself, most of the work being done Sundays and nights.

The first thing to do was to get in touch with some firm that sold cameras, and the only thing to do under the circumstances was to send to the two great mail-order houses in Chicago for their catalogues. This I did, and then for the first time I learned the difference between a box and a view camera.

After burning midnight oil, I sent in an order for a 4 x 5 view camera with rack and pinion focus movement and reversible back, anastigmat lens working at f. 6.8, twelve double plate holders, Bee meter, developing powders, developing tank, post-cards, and toning and fixing powders.

My tripod was a tilting top combination, and to this combination I owe the fact that in about three hundred and fifty negatives I now have, there is not one in the lot but what the picture is square in the plate and centered correctly. I speak of this because I recently had given to me about two hundred negatives taken in Africa by an old friend, and every one of the views is either too high up or too low on the plate. They must have been taken by a view-finder which was not in line with the plate. I don't see how I could get along without this tilting top tripod.

My camera came with the stop set at 32, and as I knew absolutely nothing about stops I never changed it. So all my work in July, August, and September was done with stop 32 and 1-100 of a second exposure, and, strange to say, it was good; but when the sun got south in November I began to learn something about the stop and exposure which will be related farther on.

I happened to have, on the farm, a potato-storage warehouse of large dimensions. When the double doors and ventilator were closed, this was of inky darkness, and it was in this building that I established my dark room. An incubator four feet square made a handy table and a shelf near by contained my gallon bottles and fixtures. The temperature of this room runs from 34° in winter to 75° in summer, and it has proved to be a good place for a dark room.

I never had any trouble loading or unloading, and in three hundred and fifty or more negatives I never have had one injured in the least by light or finger marks.

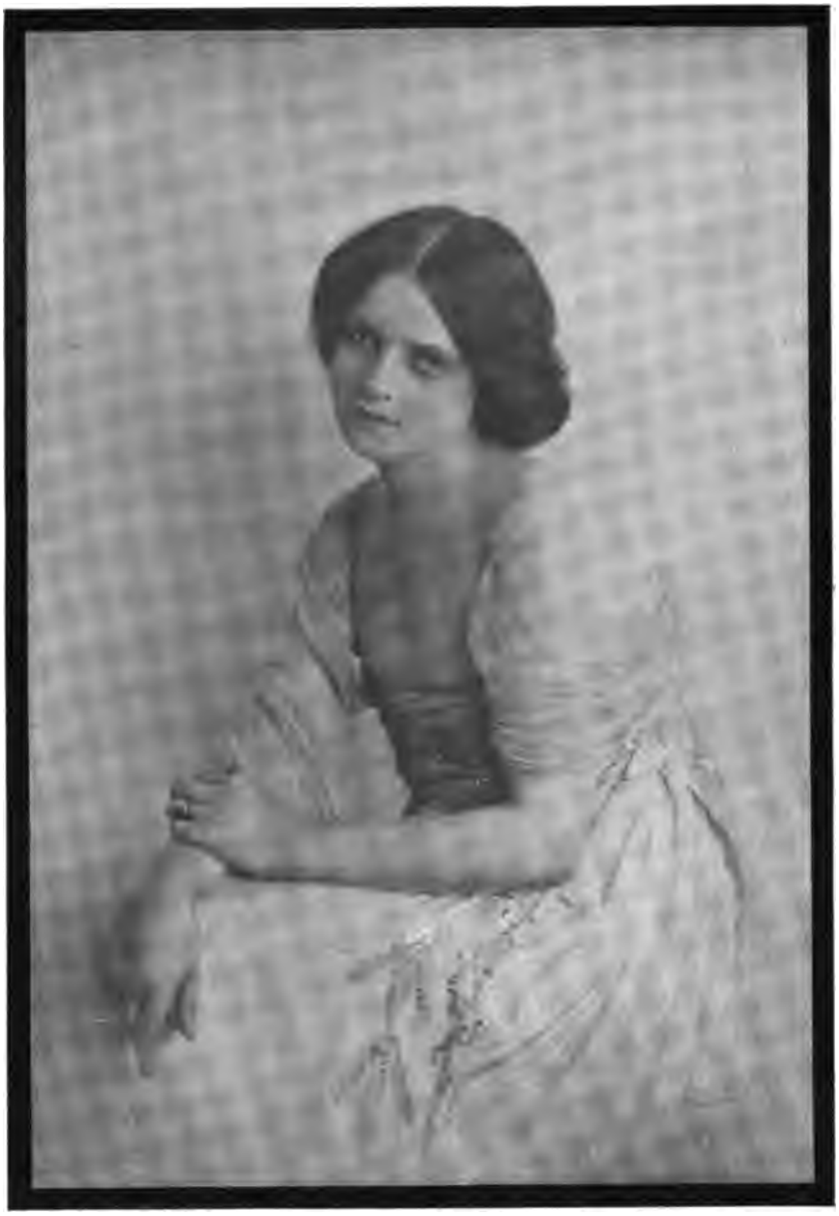
Having a tank holding twelve plates, I thought it would be economy to take twelve views and then develop the twelve plates all at once. It never occurred to me that in case of a failure it would be more economical if I only had two or three plates in the tank.

I took twelve views, using the stop at 32 as it had come to me and the shutter at 1-100 of a second, and like all beginners I focused by the scale marked on bed of camera and by pacing off the distance, instead of by the ground glass as I should have. Fortunately the scale was correct and the lens a very fast one, and the plates were Hammer's and Seed's very fastest, working at a speed of 250.

Now, the instruction book sent with the camera did not have anything to say about tank development, and I only had the printed circular sent out by the makers with the tank, which briefly said, "develop for twenty minutes, then wash."

All my goods bore the trade mark of a first-class house and a picture showed the operator pouring the developer into the tank with an 8-ounce graduate. Of course I did the same, and soon found out that it took the graduate three times full. I afterwards discovered that the plates contained a high-water mark where each graduate of developer left off that would have ruined them.

Right here I want to enter a protest against such deceptive pictures. Had the picture shown



STUDY
L. L. PRICAM, GENEVA
Swiss Professional Section, Dresden Exposition

the operator pouring the developer into the tank from a quart bottle instead of an 8-ounce graduate, I and perhaps many others would not have been misled.

So ignorant was I that I did not know that plates had to be fixed in hypo or kept out of the light until in the fixing bath, so of course I rushed out of doors with the plates as soon as the twenty minutes were up and held them one at a time up to the light to look at them. With a great shout of joy I called the family to see the pictures in the plates, which were splendid, and the family showered praise on me and the little camera.

After drying the plates two or three hours my sister-in-law coaxed me to try to print some as she was going home that afternoon, and she expressed a wish to take some views home with her.

How I wish I could draw the veil right here! We were blissfully ignorant of the great mistake I had made and were in the seventh heaven of delight at the prospect of making prints so easily and quickly.

With all the family looking on, I put a plate in the frame, inserted a card, and put it out in the bright sunlight, and we waited in happy anticipation about five minutes. When I opened the frame and pulled off the card — I was dumbfounded. Instead of the pretty view on the card which I had expected, the card had stuck to the plate and torn off the gelatine when I removed it, and it was a sight to see. My sister-in-law gave me the horse laugh, and to this day I have never forgiven her.

The shock of this failure and the lack of sympathy of the family nearly crazed me. However, I soon rallied, and remembered that I had eleven more left, and I let my sister-in-law go home without any prints; but I promised to mail her some in a few days.

After forty-eight hours' drying I made sure the plates were dry; then I put my printing frames to work and let them work all day. Still I could not see any print on the cards, although the pictures showed plainly enough in the plate when held up to the light. All the next day they failed to print, and the thought that I had failed, when so sure of success, nearly made me cry.

I wrote to the mail-order house in Chicago and explained the trouble to them and asked them for advice. In about a week I got the reply: "*Fix* the plates in hypo after developing and washing, being careful not to expose them to the light until they have been in the fixing bath one minute or more, and to keep them in the bath twice as long as it took to take the cream out."

Here was a revelation to me. The instruction book said nothing about tank development, and of course the tank makers did not go to the trouble to tell the novice to "fix" the plates, yet I suppose there are thousands who start in photographic work who are as ignorant as I was. If I were a photographic manufacturer, I would give more explicit instructions and also give the names of this and other photographic journals, so that the ignorant novice way out on the prairie could not possibly fail to go right.

My first twelve plates were a great shock to me, but I soon rallied, saying to myself that I had found out my trouble and was now O.K.

I had several colts and show horses that I intended to take to the local fair, and I was very anxious to take their pictures so I could sell some cards at that time. The fair was to be about September 10, and it was now nearly August. Every failure meant a week's delay, as I could get no time to take views except on Sunday.

Fortunately we had a great drought and the sky was bright and clear most of the time. At any rate I remember I worked every Sunday under a clear sky, and about the first Sunday in August I again took twelve views of the colts and horses, using the camera as before. I developed and fixed the plates that night and put them in the rack, up overhead in my creamery building, to dry for the night. Early next morning I took a look at my negatives and was nearly stunned to find them all stuck up and ruined by little gnats. Wherever a gnat had stuck to the wet gelatine, the

IN THE WOODS CARL FREDERIKSEN, COPENHAGEN

Sixth American Salon

gelatine had cracked or shrunk away in drying, and the struggles of each gnat to get loose had made a spot in the emulsion on the plate as big as a pea.

Out of the twelve plates I only printed from one, and that one had many blemishes in it, caused by the gnats. The picture was of a colt lying down in the barn dooryard, not much of a background, and the colt looked as if it had ulcers on its body. With this blemished plate I learned to print, develop, and fix cards, also to wash and dry them.

This second failure put me back another week, and my family began to clamor for post-cards to mail to their friends. I got no sympathy from them, as they thought any one ought to know better; so I went to work all over again, taking twelve more views, developing, washing, fixing, rinsing, and this time I left them in the dark room to dry, leaving the board doors open, but having the screen doors closed. No flies or gnats got on them this time, but in the night a hard wind arose, and as the potatoes had left a fine sediment on the cellar floor, this fine, dry dust blew all over the wet gelatine on the plates, causing thousands of pin-holes in each plate.

Again I was in the depths of despair, as not one of these plates was good. I printed a few cards from one plate, showing my thirteen-year-old boy driving his four-months-old colt to road cart, with fly net on the colt. Middle of August and no good negatives yet, and only time to work on Sunday!

Again I took twelve views, swearing by the great horn spoon that no failure should overtake me this time. I covered the negatives over with fly netting, and at three in the afternoon, temperature 108°, I put them in the house to dry.

At six o'clock I looked at them, wondering the while what calamity would overtake me this time, and I found the heat had caused the film to melt and run down to the lower end of the plate. I up-ended them and trusted it would run back again, but it never did; and although the views were nice, one end of the plates was so much thicker than the other, that I gave up the idea of ever printing from them.

This was my last failure, as I had about exhausted all the blunders that I could have possibly stumbled on.

It was now only a few days to the fair, and I went all over the work again, developing and fixing the plates late in the day. Covering the rack up with mosquito netting, I placed them out in the United States government thermometer shelter that I have. This is surrounded with slat-blinds and is out in my field seventy-five feet from the house and five feet above the ground. This ended my troubles with plates, except that I have now learned better than to attempt to develop any more than six plates at a time. The truth of the matter is, that when twelve plates are developed at once in the tank, the gelatine sides are too close together, and I never could get all the developer washed off so there would be no smooches on them. This closeness of the plates in the tank should be remedied by the tank makers, as when only six are treated at a time, a seven minutes' dashing up and down in a bucket of water will always remove all developer, while with twelve plates in the tank and ten minutes' rinsing, there will surely be some in the middle with developer left in them, and the hypo will cause smooches on the plates.

When I have plenty of water, I let a barrel of water run through the tank, and this does very well; but I have only a limited supply of soft water, and cannot often spare a barrel of it, so I now develop only four to six at a time and rinse them off in a bucket of water, churning them violently up and down for seven minutes.

(*To be concluded*)

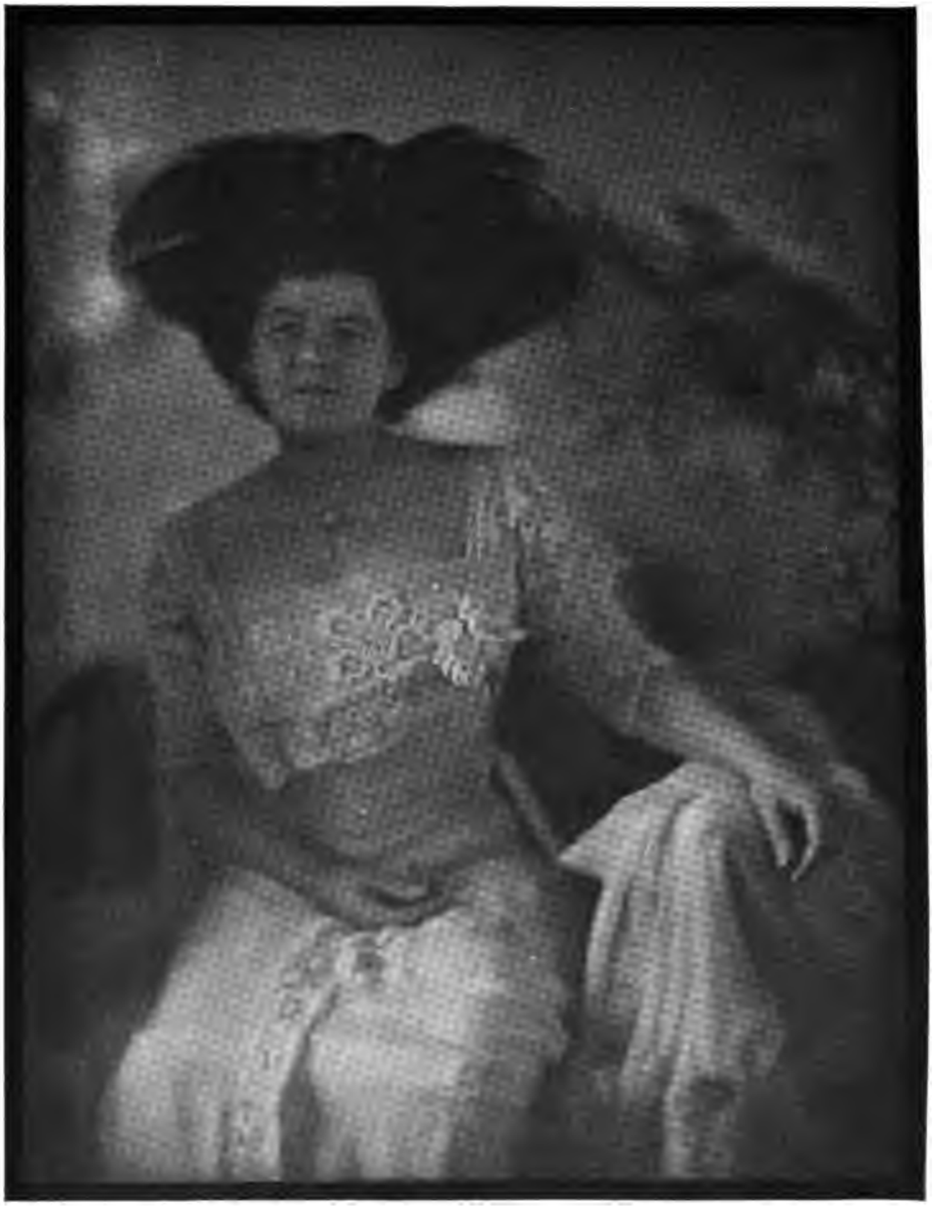
INSPIRATIONS OF THE SIXTH AMERICAN SALON

(*Camera Work* please copy)

Mr. Paul Lewis Anderson's quite
A disciple of Clarence H. White; —
  A Smith lens, he insists
  Used in sunshine or mists
Will make any old subject look right.

The eminent H. W. Minns
Gets the proper reward for his sins; —
  His prints he *would* issue
  On Japanese tissue,
And now they resemble dead skins!

A prescription for prints *à la Eisen:* —
Mix gunpowder, gum, smoke, and pizen.
  Smear the mix on a card
  Two feet by one yard —
The result will be something surprizen!



PORTRAIT
WANDA VON DEBSCHITZ-KUNOWSKI, MUNICH
German Professional Section, Dresden Exposition

OUR LONDON LETTERS

A. H. BLAKE, M. A.

CERTAINLY the most important matter to speak of this month is the change which is taking place in the two great London exhibitions. I mentioned last time that those Americans who exhibit at the Royal should have their work ready betimes, owing to the fact that the New Gallery being no longer available, the R. P. S. exhibition would have to be held elsewhere and probably at a different time of year. The exhibition will be held in August, and the gallery will be the fine rooms of the Oil Institute in Piccadilly. It adjoins Prince's Restaurant and has good accommodation, but the principal room will have to be reserved for trade purposes and the second best for scientific exhibits, so that the accommodation for pictures will be restricted and consequently the judging more severe than even last year. The position of the gallery is a good one, but the time of year (August) at which the exhibition will have to be held most unfavorable, as the moneyed people are absent from town on holiday. Probably the smallness of the room devoted to the pictorial work will not be a disadvantage, and a small show of the best work made obligatory by the exigencies of the case will do the Royal no harm at any rate for one year. Americans should remember that the alteration of date will necessitate the pictures being despatched from them at least six weeks earlier than on previous occasions.

The news relative to the salon is more sensational. For the first time in seventeen years the Linked Ring is to hold no salon as a united body, but this does not mean that no exhibition will be held. At the same time of year and with the same energetic and capable secretary, Mr. Reginald Craigie, there will be held the London Salon of Photography, organized by a number of the Links who feel that the salons of the two past years have not been worked on the right lines and that a reversion to old methods is necessary if any success is to be attained. The names of the organizers of the London Salon of Photography are as follows; J. H. Anderson (L. R.), Alexander Keighley (L. R.), Will Cadby (L. R.), Mrs. Cadby (L. R.), F. J. Mortimer (L. R.), A. H. Blake (L. R.), Chas. Job (L. R.), E. R. Ashton (L. R.), Ward Muir (L. R.), Reginald Craigie (L. R.), David Blount (L. R.), J. B. B. Wellington (L. R.), C. H. L. Emanuel (L. R.), and E. O. Hoppé. The allegiance of some of the finest continental and American workers is already assured, and so is the success of the exhibition. At the London Salon of Photography all exhibitors may rest assured that every single picture will receive the dispassionate judgment of the members, and the names here published are a sufficient guarantee that no fads or fancies, no one-sided points of view, will interfere with their judicious selection of the best work of the best men in the photography of to-day.

There has been some discussion in the press (and I contributed a paper on the subject at one of the recent meetings of the R. P. S.) on the present position of British pictorial photography. The general conclusion arrived at is that as the pioneer days are over and the standard has risen so greatly in the past few years, no very new or startling developments are to be expected, that it will be exceptional for new men and new pictures of commanding importance to be forthcoming, and the progress will be, as it has been of late, slow but very sure and very great. Between one year and another no very startling advance may be discernible, but over a period of two or three years a most valuable advance will be apparent. I can vouch for the fact that throughout the London society exhibitions the advance, say, since 1904, has been most remarkable; pictures which used to command attention and receive awards are hopelessly behind if shown now. No doubt America has the same tale to tell, though possibly amongst you the number of noticeable and outstanding pictures is greater, as befits a new, vigorous, and original people. The work which the R. P. S. has done over here is not easily estimated. The gradual upward pressure of its exhibition standard has raised the whole tone of British pictorial work in a remarkable degree. Its work will be as valuable in the future as in the past, and perhaps more so, for it will prevent discouragement following the general leveling up of excellence.

LANDSCAPE H. Y. SUMMONS, CAMBERLEY, ENGLAND
First Prize, General Competition

The Affiliation of Photographic Societies in connection with the R. P. S. stands for a big idea, which as far as I know is not worked on your side of the Atlantic — nothing less than the binding together in one organization, for conference, mutual help, and united effort, the members of all the photographic societies in the kingdom. Of course the societies do not all belong, and there are parts of England where Federations have occupied the ground, but the work which has already been done is most important and far-reaching. As I write, an exhibition of the selected work of the Affiliation throughout Great Britain is on the walls of the R. P. S., afterwards it will travel round, as the Salon does in America, to the various societies, and with it a detailed critique with diagrams from the pen of a well-known artist in the ranks of the Royal British Artists, so that the less instructed visitors to the exhibition will be instructed in the why and wherefore of the pictures on show. The influence for good amongst the members of societies that very seldom have a chance of seeing really good work should be very great. I give the idea to American organizers for what it is worth.

We are looking forward with great interest to the Anglo-Japanese Exhibition at the White City this year. The English Committee to arrange the Photographic Exhibition (of which I have the honor to be a member) are organizing pictorial, color, technical, and scientific exhibits, and we shall be more or less on our mettle as there is no doubt that in some departments, unless we surpass ourselves, our Japanese friends and rivals will easily knock spots off us. Visitors from your side, who are sure to be many, if they are photographers, should look out for the pictorial and technical photographic section of the exhibition.

EDITORIAL COMMENT.

WORDS OF APPRECIATION

WE cannot find words to express our gratitude for the letters of appreciation which have poured upon us in the last two months. We were conscious that we had made a much improved magazine by the changes introduced in our January number. We hoped that a few readers might take the time to write whether they preferred the new or the old form, but we never dreamed that we would receive the measure of approbation actually extended. We have had a perfect flood of commendatory letters. Almost every reader who has had occasion to write us for any reason has added a phrase or a paragraph about the new magazine. Dozens have written us for no other purpose than to tell us of pleasure and profit reaped from the magazine and praise us for the enlarged and embellished January and February numbers. Our English contemporaries published commendatory editorial paragraphs, as grateful as unexpected.

To each and all we extend our thanks. We are sensible of the responsibility placed upon us to maintain and uplift our standard, and will strive to meet it. We have formulated many plans for future work and will endeavor to make each number more valuable and comprehensive than its predecessors. We bespeak from our readers support in several ways. Criticize what you do not approve, praise what pleases you, ask for articles which will help you, let us see your work in "Portfolio" and Competitions, and LET OUR ADVERTISERS KNOW THAT YOU READ THEIR ANNOUNCEMENTS. Thus will you help us to give you a better magazine, and so help yourselves.

PROFESSIONAL WORK AT DRESDEN

WE alluded in a recent number to dissatisfaction felt by some American photographers because of the awards which were made at Dresden. As a result of the representations made by us to Mr. Dührkoop and the jury, this question has been reconsidered, and we are now advised that a special commission was appointed to consider the question of these awards. As a result a diploma for a gold medal, an award of very high rank, has been awarded to the collective exhibition of the American professional photographers as a whole. This supplementary honor is due in a large measure to the efforts of Mr. Dührkoop, who has felt that the American collection was of extraordinary merit.

CYANIDE OF POTASSIUM

THIS chemical is not as well known to the present-day photographer as it was in the earlier days of photography. The average amateur has little occasion to use the substance or become familiar with its dangers, and it is, therefore, with some alarm that we note that several recently published formulas have prescribed this chemical without due warning as to its poisonous nature.

A MOUNTAIN COTTAGE — ELGIN LESSLEY, COLORADO SPRINGS

Second Prize, Monthly Competition

The metallic cyanides are among the most deadly poisons known to the inorganic chemist. Their action is terribly rapid and only in exceptional cases are antidotes of avail. Prussic acid itself in its pure form is so deadly that a single drop on the tongue will kill like a stroke of lightning, while potassium cyanide, its most common salt, is only less deadly in its action. We are impelled to this note by the recent deaths of three well-known photographers by cyanide of potassium. A professional photographer in Pittsburg drank a cyanide solution by accident instead of medicine, and realizing his mistake instantly called for assistance. Although aid was prompt, he was in an unconscious condition before any antidote could be administered and all efforts to save his life were in vain. In addition to this, two well-known New England photographers have died from the effects of drinking similar solutions.

The substance commercially sold as cyanide of potassium is often of a very low grade of purity. The best commercial samples do not contain more than forty to fifty per cent of actual cyanide, and from this it ranges down to sometimes not more than five per cent. Of course, a solution of this impure substance is not as dangerous to life as the pure chemical used for analytical purposes. Many an old-timer has laughingly asserted that cyanide is not so dangerous after all, but at the same time it is not a chemical to be carelessly handled, and its solution should under no circumstances be preserved or bottled. The only safe way is to make a fresh solution and destroy it instantly after use.

OUR COMPETITION

We regret to say that the entries in the landscape competition, while as numerous as usual, were not of the high order of merit which has characterized some of the contests in recent months. While the prize pictures are fully up to our average standard, the number of honorable mentions is very small indeed. The list of awards is as follows: —

First Prize, "Landscape," H. Y. Sümmons; second prize, "A Mountain Cottage," Elgin Lessley; third prize, "The Brook in the Woods, Winter," Harry D. Williar. Honorable Mention: "A Quiet Spot," H. Berssenbrugge; "Cedars," C. W. Christiansen; "Spring," E. B. Collins; "Landscape," J. H. Field; "Millrace Near Dickeyville," A. B. Hargett; "February Landscape," Alexander Murray; "Monastery of St. Francis of Assisi," William H. Phillips; "Hazy Sunshine," C. Ney Pickering.

THE COMPLETE SELF-INSTRUCTING LIBRARY

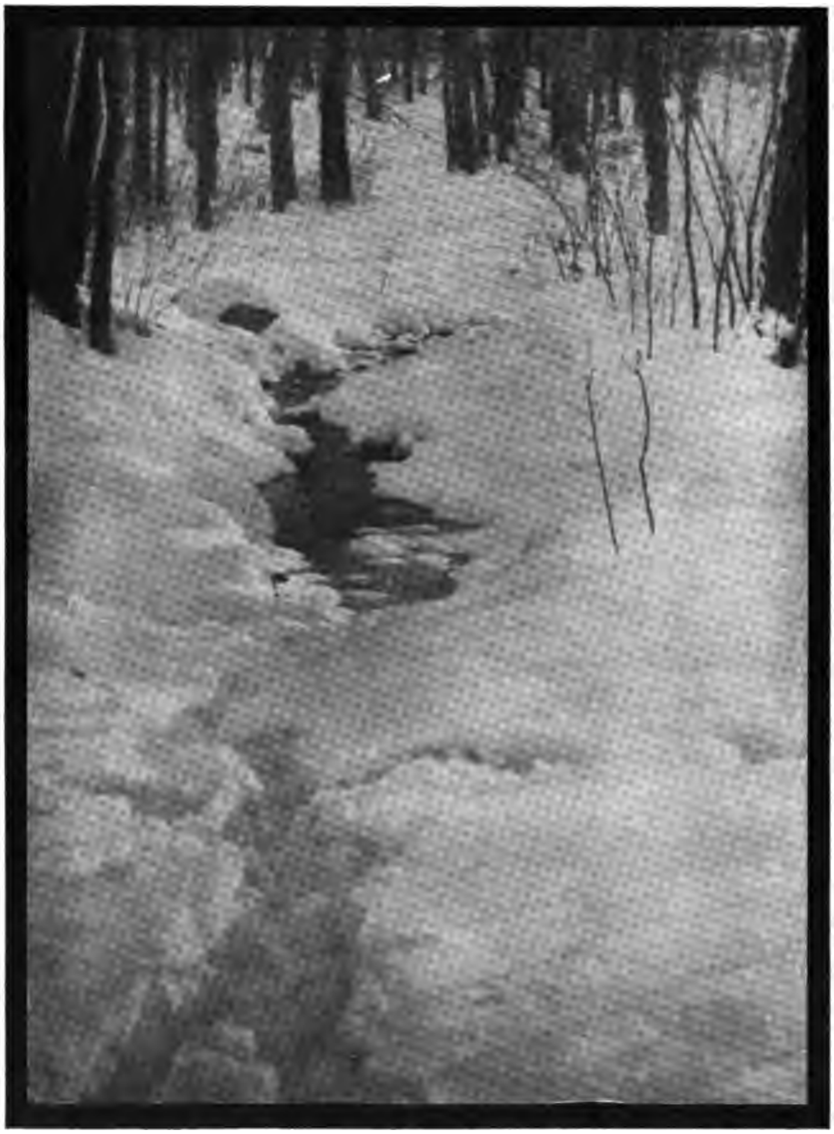
Last month we announced to our readers the unprecedented opportunity afforded them of obtaining this invaluable set of books at a greatly reduced price. It is with the utmost pleasure that we are able to announce that this offer has met with a most gratifying reception. We have received in the two weeks which have elapsed since this offer became effective, a totally unexpected number of orders, even before our advertising had become known to the photographic public in general. What the demand will be in another month it is difficult to foresee. We are certain that the five thousand sets for which we have contracted will go much more rapidly than we had dared to hope. We would, therefore, advise our readers not to let many months pass before sending their orders or they may to their surprise and disappointment discover that the entire edition is exhausted while they have waited.

THE PORTFOLIO

We have received a number of letters from those interested in the "Portfolio," expressing the opinions of their writers as to the number and size of the reproductions. Unfortunately there is no unanimity of opinion and the number of those who prefer large prints and few is about equal to that of those who would like smaller reproductions of as many pictures as possible. The editor is, therefore, left exactly where he was when he asked the question, and must use his own judgment as to what will be of the greatest utility to the largest number. Last month we reproduced about one third of the pictures criticized in large size, and we hope that the selection was such as to render as many of the criticisms as possible useful to the majority of the readers. This month the unprecedented number of criticisms has forced us to reduce the number of reproductions. We may remark that if we are to continue the practice inaugurated in November and December of reproducing many prints in a small size, it will be necessary that all the pictures sent us for criticism should be unmounted. When we have to arrange and mount any number of prints on a neutral background for photography, it is essential that they be on as thin paper as possible, and we therefore request that all prints sent us for criticism be unmounted.

As regards the size of the reproductions, one of our readers very justly suggests that as the majority of the prints sent for criticism are undoubtedly made with hand cameras, any reproduction which is as large as the image in the finder, that is at the outside an inch square, should be of utility: this is perfectly true. The man who sees and composes his picture in a finder has but a small image to work with and must learn to judge it in this small size. Undoubtedly, however, a larger reproduction gives a more satisfactory idea of the print whose criticism is being studied.

It is better to start small and grow UP
than to start too big and grow DOWN.



THE BROOK IN THE WOODS, WINTER
H. D. WILLIAR, BALTIMORE
Third Prize, Monthly Competition

OUR PORTFOLIO.

Prints for criticism under this heading should be sent to Frank R. Fraprie, 6 Beacon Street, Boston, Mass. Only one by each reader can be criticized each month. Prints are not returned after criticism. An asterisk indicates that the print is reproduced.

372. **J. R. Poole.** — "A Quiet Grove." This print has too much contrast, pure white sky and clogged shadows. evidence of under-exposure and over-development. The arrangement is ungraceful, the foreground being uninteresting and too many horizontal lines cutting the picture into sections.

373. **H. D. Burgess.** — "A Mountain Road." Like the last, this print shows that it has been printed from too contrasty a negative, the sky being blocked up and the shadows without detail. Had proper exposure and development been given, this would have been an interesting picture, as the composition is not unpleasing.

374. **Claude Davis Millar.** — "Tethered." We cannot ascribe much pictorial merit to this picture, even if the technical work had been satisfactory. Under-exposure and forced development are responsible for the lack of shadow detail, and the halation in the sky. The use of a short-focus lens renders the relative proportion of the tree and the cow absurd, as they are apparently in one plane, owing to entire lack of aerial perspective The foreground is confused and distracting.

375. **Fred E. Crum.** — "Quenching His Thirst." This is an interesting transcript of boy life, technically well done, but not artistically very interesting. The boy's position is uncouth and awkward, and the white pail on the shelf of rock makes a distracting spot which pulls the attention away from what should be the center of interest.

376. **Thomas Bradt.** — "A Mountain Stream." This shows a jumble of rocks and tangled woods, with a little water trickling over the rocks, but is too confused to make a satisfactory picture. Under-exposure causes excessive contrast.

*377. **Miles J. Breuer.** — "Roses." This print when placed with the leaves at the top has interesting decorative elements. The technique, however, is not wholly satisfactory, as the lens you used did not have sufficient depth of field to render the texture of the rose petals satisfactorily. The leaves are altogether too dark in comparison with the flowers, and you would have done better had you used a color-corrected plate.

401. A SHADY NOOK T. F. HARPER

378. **E. P. Lincoln.** — "A Happy Pair." Again we meet with a print full of solid blacks and pure whites, an excess of contrast due partly no doubt to the printing paper, but mainly to under-exposure and over-development. The children were placed in too strong a light, as shown by the frowns on their faces, and the whole arrangement is stiff and formal. The camera was placed altogether too near the subjects, cutting off their legs.

379. **Clement W. Lowe.** — "The Firs of the Wissahickon." Contrasty and spotty, this print shows marked evidence of forced development, following too little exposure. A soft and harmonious print at this spot might be interesting, but severe trimming will be necessary with the composition which you have.

380. **Mrs. E. R. Thordenberg.** — "Pet Deer Resting." This is a fairly good print of the subject, but the negative is evidently pretty dense, and you have not given sufficient printing to bring out the values in the background. The same fault of over-development exists in No 1. Please note that we can criticize but one print per month.

381. **M. H. Bell.** — "Signs of Spring" is a landscape of pleasant quality, but containing far too much material, and with a serious defect in composition. This is the presence of the straight dam across the lower half of the picture. If you will trim about one quarter of an inch above the top of the dam, and from the space above this trim out a section about 1¾ x 2¼ inches, you can make a very pleasing little picture, which will stand considerable enlargement.

382 **Herbert J. Day.** — "The North Branch." This is an example of exaggerated foreground arrangement, and makes a very interesting picture. The pattern in the water is not as pleasing as is sometimes the case, but the arrangement is on the whole very good.

383. **Freed A. Miller.** -- "Cornfield." This is one of the subjects which is often taken, usually unsuccessfully. We do not feel that you have made a particularly pleasing picture here. By giving a short exposure to get the sky you have made the landscape flat and gloomy, and the arrangement of the corn-shocks is not a particularly happy one.

384. **E. B. Carling.** — An exposure on a landscape of 1-25th of a second, with stop 64, even on a bright August day, is pretty likely to be under-exposed. In addition to the contrast which this under-exposure and harsh development give, you have an extreme spottiness because the sun was almost exactly behind you, the most unfavorable position for landscape lighting. A properly exposed negative at this point, taken with a side light, might be interesting.

377. ROSES MILES J. BREUER

385. **K. L. Thompson, Jr.** — Your home portrait is taken with the subject too close to the window. The consequence is a flood of light, which has rendered it necessary to lose all details in the high lights to get values in the shadows. If you had posed the subject a little farther away from the window and farther back, you might have gotten a more harmonious lighting. The pose is natural and graceful.

386. **S. J. Katarski.** — "Little Jack." As far as we can judge from the minute photograph which you have sent in, Jack is a lively little kid, consequently we do not know what he would do without hands, of which your portrait deprives him. We see no reason for the system of vignetting just below the elbow and waist which you have adopted. The lighting is a little too harsh, and the highest light is on the shoulder instead of the face, where it should naturally be.

387. **Susie A. Parkinson.** — "Feeding the Dogs." You call our attention to the fact that the horizon of your picture is not level, and state that in some places it is not possible to get this. There is no place on earth where the horizon line consisting of water cannot be made level if the camera is placed level. Water does not run up hill, and the line between sea and sky is always horizontal. There is not much to say about this picture, except that it is a family group, interesting to the participants and to no one else. The oval trimming is decidedly out of place.

388. **D. C. Beardsley.** — Your picture of the house is in some respects very good. The exposure seems to be about right, but the negative is a little too dense from over-development. If it had been possible, you should have placed your camera a little farther back, as in trying to fill the plate you have cut off the tops of the gables. In an architectural photograph you should not crowd the edges of the plate too much. The black spots to which you refer are apparently caused by small blisters produced during washing, which break open while drying and cause pits. This is often caused by slow drying in a warm place. Soak the negatives in strong alcohol before drying, which will sometimes help this materially by causing quick drying and also by reducing the size of the blisters.

389. **Harry G. Burns.** — This would have been a pleasing and well-arranged group had you given the proper exposure, and had fewer people in the canoe. Of course, it is difficult to judge exposure under the shadow of a great tree, but under such circumstances it is better to err on the side of over-exposure rather than under-exposure. If the two passengers in the canoe had been attending to their own concerns instead of staring at the camera and leaning out over the gunwales to get in the field of view, you would have made a much better picture.

390. **G. L. Jonischkies.** — "American Belle." The usual amateur fault of under-exposure and over-development is present here. No details in the black dress, none in the white posts, betray this seemingly inevitable tendency of the beginner. If we should judge by your trimming of the print, the posts and doorways of this house slant at a considerable angle to the vertical. If your carpenter should build you a house this way you would refuse to accept his work. Why, then, should you be willing to send out a print trimmed with no regard to vertical and horizontal lines?

391. **C. S. Brown.** — As you suggest, your two prints on the same subject are respectively too dark and too light, but you would hardly be able to get a better print from the negative. The dog is taken against a background so near his own color that sufficient contrast does not exist and hence cannot be brought out. You did not hold your camera level, consequently the vertical lines slant to an alarming degree. This might have been remedied by trimming, but, of course, no beginner is ever willing to cut off the slightest portion of the edges of the print. In this print, if you wanted to picture the dog, you could afford to trim away nearly half of the print to advantage, getting rid of clapboards, details of steps, etc., and leaving the attention concentrated on the object of interest.

392. **S. E. Green.** — "The Lake." You have here a startling natural phenomenon,— the placid surface of a quiet lake, much higher on one side of the picture than on the other. Do not be afraid to trim off a little of the paper if necessary to make horizontal lines appear horizontal in the print. In this particular case, however, we fear you would not be able to make an interesting print from this negative under any circumstances. The low horizontal line of the farther shore of the lake, with a long expanse of rippling water in front of it, offers nothing of pictorial interest or value. This is one of the cases where you were deceived by color. You were

404. IN WINTER'S ICY BONDS D. V. GAMBACH

taking a picture which could not possibly be attractive or interesting in monochrome.

393. **Weston Woodward.** — "Minnehaha Falls in Winter." This is a good record picture. It could not possess much pictorial merit, because of the multiplicity of distracting detail present at the spot where it was taken, but as a memento of your trip it is wholly satisfactory.

394. **A. H. Clark.** — A panoramic landscape, such as you have photographed here, can rarely be made pictorial. Your print has a certain snap and brilliancy causing it to seem attractive at first glance, but this is due to entire falsification of values. In order to get clouds you have under-exposed to such an extent, that even distant trees appear jet black, while the field in the foreground looks as if covered with snow. Only one remedy is possible, to make another negative, giving considerably more exposure.

395. **Arthur E. Anderson.** — "Off for a Row." This is a rather pleasing pictorial arrangement, and had you given sufficient exposure, and soft development, you would have had an interesting little scene. Even now a different printing paper may help.

396. **L. L. Griswold.** — This picture does not possess elements of verisimilitude, the ax being evidently too big for the youngster to yield with satisfactory results. There also does not seem to be anything in sight for him to chop. Getting a boy to grasp the handle of an ax which some one has stuck into a block and then stare into the camera does not make a genre picture.

397. **J. Erdt.** "Dorothy." — This picture is pleasing in many respects, but suffers from the inclination of doting mammas to dress their little girls in their best starched white gowns to be photographed. Also white bows on top of the head distract the attention from the face. Even under the best circumstances, and with the greatest care in lighting, a person robed entirely in white is a difficult subject. In this case you have the highest light on the skirt, absolutely preventing the eye from reaching the face, which should be the center of interest. The accessories also are somewhat distracting. The light and exposure on the face is fair, and if the little girl had been dressed in a dark-colored gown, the attention would have been concentrated on the features.

398. **Frank Bey.** — "Hairpin Curve." Except as a record picture of a dangerous curve in the road, this print possesses little interest. The white curve of the road winding through the picture is not conducive to a good composition, and the many vertical trees cutting across it do not help. The brilliant lights and deep shadows are so distributed over the print as to make it unpleasantly spotty. Under-exposure and over-development, as usual, is responsible for this harshness of contrast.

399. **J. N. Brown.** — "Winter." This is a very good picture of a railroad water tank covered with icicles, — an object which could have no possible interest to any one not connected with the railroad served by this useful and necessary, but not architecturally beautiful bit of construction. Produced as a commercial post-card and yielding to the demand of the public for strong blacks and pure whites, this may be considered a commercially satisfactory piece of work.

400. **C. L. Curehill.** — We are willing to admit that your portrait is not as bad as it could be, because we have never yet discovered the limit of badness in a photographic print, but we cannot justly say that it is a very commendable piece of portrait work. The portrait, of course, had exposure which was far less than you should have given. Instead of one second, eight or ten was probably necessary, and you can appreciate that such an amount of under-exposure would be fatal. All that one sees is one side of a face and two hands peering out of infinite darkness.

*401. **T. E. Harper.** — "A Shady Nook." Unlike the majority of the prints which come to us, this is soft and harmonious. At the same time the film developed with metol-hydrochinon is too much blocked up and has too little detail in the shadows. The composition of the print is excellent, and it would make a very satisfactory enlargement.

402. **William C. Hammersmith.** — "Winter Landscape." If it were not for the snow on the trees we hardly think you would choose this spot to take a picture, and the composition is not improved by the presence of the snow. The detail of the snow-covered branches against the sky is almost entirely lost, presumably owing to the fact that improper exposure was given and the sky clogged in the development.

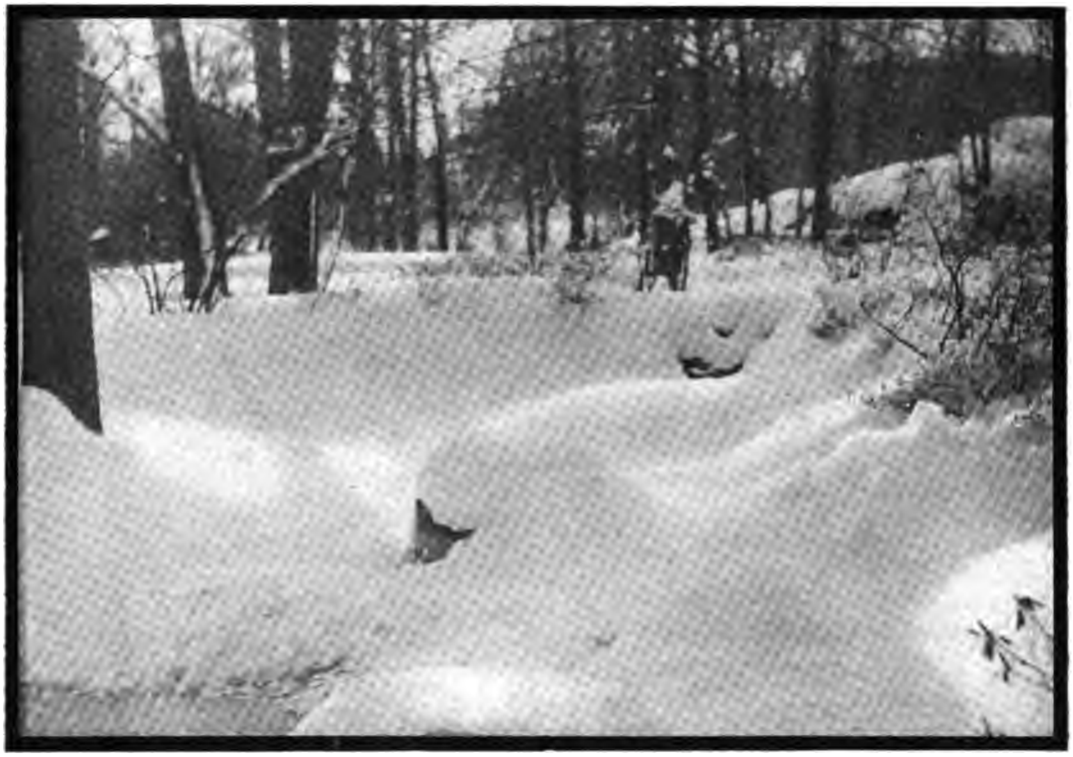
403. **Allen Woodard.** — "Near the River." This is the best of the three sent to the competition, of which the others suffer from extremely incorrect exposure. In this print the exposure is just about right. The values of the sky and the snow are well preserved, although perhaps a little more detail in the latter might have been secured. Your camera was not held horizontally, and the consequence is that your horizon line runs up hill at a steep angle. This could easily have been corrected by trimming. We do not find much to interest us in the selection of subject or the arrangement, and the barbed wire fence running directly across the picture is certainly a defect.

*404. **D. V. Gambach.** — "In Winter's Icy Bonds." This print is properly exposed, has good values in the snow, and is well composed. We think it would make a fair enlargement, trimming a trifle to remove the telegraph pole in the distance on the right-hand side.

405. **H. C. Harm.** — Your unnamed snow scene is a trifle flat, due to over-exposure. We prefer to see a print erring in this direction rather than toward the great contrast caused by under-exposure, as the result is much nearer the truth as the eye sees it. The composition of this print is interesting, except for the tangled mass of brushwood in the middle of the right-hand side. Had you avoided such a dark spot here you would have made a very satisfactory picture.

406. **Bertram Moody.** — "Evening Shadows" carries out the suggestion of the name admirably, and is an excellent picture. The reflections in the still water or ice are beautifully soft and pleasing, and the general massing is very interesting.

407. DADDY'S BOY A. H. CHAMBERLAIN



410. SNOW IN CENTRAL PARK D. J. RUZICKA, M. D.

*407. A. H. Chamberlain. — "Daddy's Boy." This is a pleasing little outdoor portrait of the youngster, lacking a trifle of the detail which it might have in the dress, but much better than the average amateur portrait. We would suggest that you trim enough from the top to avoid the white spot, and also possibly trim a little off the right-hand side. You can experiment and find the best trimming, but use of the shears will concentrate the interest on the child instead of allowing it to wander over the details of barn-door architecture.

408. H. S. Rice. — Your portrait study appears to very poor advantage in the printing medium which you have chosen, and we should advise you by all means to avoid such an unfortunate color again. Even a blue-print would be better than this sickly brown. You have chosen a very unfortunate lighting for the face, both sides in shadow and a high light on the nose and forehead, together with another on the very edge of the left cheek. By all means confine your lighting to a single window, and do not adopt such a cross light for your portraiture. The pure white streak on the left side of the print, together with the strong high lights on the waist, completely pull the attention away from the face.

409. W. P. Smith. — This print is somewhat over-printed, but we should judge the negative was very good, and it is technically excellent work. As a record it is interesting, but it cannot be said to have much artistic value.

*410. D. J. Ruzicka.—We can criticize but one print a month, so we have put some of these over for a future occasion. The snow scene which we have selected for this month has beautiful values in the snow, but is somewhat too black in the shadows. It is a rather difficult task to preserve the crispness and brilliancy of snow and get good values in the rest of the landscape, but this, of course, is what we must strive for. The arrangement of this print, as of several others of yours, is very interesting, and we take pleasure in reproducing it.

411. A. T. Messinger. — "The Rustic Bridge." This photograph is technically excellent, and is as good a photograph of the subject as we imagine could be made. The barbed wire fence in the background does not help matters, but could not be avoided.

412. E. P. Kipp. — "One Winter's Morning." This is an excellent piece of record photography properly exposed, and showing the subject in a very pleasing and satisfactory manner. It should be of much interest to the owner of the house.

*413. Forman G. Hanna. — "Pines and Snow, Sunlight." In this beautiful print you have solved with great success a most difficult technical problem, to render satisfactorily at once the deep shadows of a pine wood and sunlight on snow. The exposure seems to have been accurate and the platinum print brings out the values in the darks very successfully. As far as the arrangement is concerned, it does not quite please us. There seems to be rather too much foreground, but at the same time trimming does not seem to wholly improve matters. The division into the dark half and the light half is too near the center of the print, but it is not quite apparent just how this could best be remedied. Perhaps if the light spot in the lower right corner were a little more diversified the print would balance better.

414. Walter J. Coppock. — "Washington's Intrenchments." An old earthwork is an extremely difficult thing to photograph in such a way as to give any real impression of the subject. You have made a well exposed negative, which shows perhaps as much of the mound as it would be possible to get on the plate at once, therefore we may class it as a successful record.

*415. C. W. Cramer. — Your portrait of a small baby with its top knot twisted up into the air is a remarkably interesting and humorous picture of baby life. We do not admire the black and white rugs which serve as the background and throne for his majesty, but otherwise we think you have made a very successful picture.

416. Jules A. Bourquin. — Your print of a farm is very flat.

416. C. W. CRAMER

As the exposure seems to be about right, we assume that the negative is thin from insufficient development, which is likely to occur in cold weather. Intensification will greatly improve this negative. It will be an excellent record when this is done.

417. **Henry Eriksen.** — Your snow scene seems to be a trifle under-exposed, although not very much so. This being the case, instead of printing on a contrasty paper you should use one of the portrait grade, which will slightly soften the contrasts between light and dark.

418. — **Robt. F. Adams.** — "Wintertime." Your print taken from a height shows a rather interesting composition, which would be much better if the stake in the foreground did not run up to meet one of the tree trunks. This makes too much of a vertical line through the picture, cutting the composition in two. Had this defect been avoided you would have had an unusually pleasing composition.

419. **C. A. Swoyer.** — Your picture of the state capitol shows a portion of a building which does not possess high claims to architectural merit. The portion which you have chosen does not have any element of intrinsic beauty as an architectural unit, and hence the print has no particular value even as a record. You have got so close to the building that the roof of the dome does not appear and thus looks like a huge water tank perched on top of a semi-classical pediment. You should have taken the picture from a greater distance and made a view of the whole building.

420. **Margaret Hazledine.** —"Retrospective Dreams." While your idea for this picture and its companion is poetic, it does not seem to us that you have wholly fulfilled your intention. You say that you have under-exposed to create softness. Under-exposure always produces harshness and strong contrast, and you should give over-exposure for softness and flatness. We feel that the lighting here is not satisfactory. One side of the face is absolutely in shadow and the other in an excessively strong light. It is not right to sacrifice modeling in even the deepest shadows of a portrait. The high light on the lower portion of the coat should have been considerably subdued. In other words, you should have brought the head into full prominence and subordinated everything else. The light back of the shoulder simply intensifies the blackness of the shadow side of the face. As to the picture frame used for balance, it is so small that it simply irritates as a light spot on the edge of the picture.

421. **B. R. Pogue.** — "Nature Sleeps." In this picture you have committed the very common mistake of amateurs in trying to include far too much material on a single plate. This stream flowing quietly and unfrozen between snow-covered banks would have given you material with its beautiful reflections for many short range pictures, and it is also probable that you could have found a picture or two in the grove of trees which stretches throughout the distance of your print. The line of broken-down fence stretching straight across the picture, and paralleled by the black line of the brook and the horizon, completely destroy any unity or composition which you might have found at this spot. The large tree at the right is too near the edge of the picture, and all of the verticals occur at ungraceful and unbeautiful intervals. Technically the picture is quite satisfactory, but this is only an aggravation when you have nothing interesting portrayed.

422. **J. D. Reid.** — "Twilight." This attempt at the rendering of evening calm is quiet and restful in most of its lines, but somewhat marred by the intrusion of the posts of the fence in the lower right-hand corner.

423. **H. Romeyn.** — "Winter Landscape." This delicate little winter scene, in itself rather attractive, is completely killed by the violent mount upon which you have placed it. Here is a good example of how a print can be killed by a mount which is in itself very delicate, as the very light gray which you have chosen would seem soft and pleasing with almost any black and white print. It is so much stronger, however, than the dominating tones of your picture that it reduces it to insignificance. This print should be mounted on pure white and would then have stood forth beautifully with apparently a full tonal scale. Your trees as a mass are well placed, but the components of the mass are not pleasing, as the trees cross and re-cross at angles suggesting anything but peace and quiet.

424. **G. W. Broderick.** — "Reflections." We have taken the liberty to remove the oval mat which you had placed over your picture, and in our opinion you have made a serious mistake by choosing any such trimming. Your print was far more interesting in its original form than when matted down. In the first place, the proportion of sky and foreground is far better in the original print. In the second place, all the beauty of this picture lies in the reflections in the water, and if you would experiment a little on trimming, cutting off most of the sky, you will undoubtedly be able to make a very pleasing picture from this negative.

425. **W. W. Mikesell.** — "Cabin Home." This is a pleasing and satisfactory home portrait. The framework of rustic doorway and climbing vine is attractive, and the picture should be very pleasing to the subject thereof.

426. **Joseph Bath.** — Your profile portrait seems quite satisfactory for outdoor work. The lighting, of course, is flat, but this brings out the profile very well against the light background. You

427. A COLD MORNING FRED J. MINARD

have apparently clogged the whites in development so that the base of the picture is too light, but this can be avoided by local reduction or by local printing. The arrangement of the head in the space is satisfactory.

*427. Fred Minard. — "A Cold Morning." You have material here for an extremely interesting picture. As it stands, you have altogether too much empty foreground and empty sky. If, however, you trim your print about ¾ inch above the horizon line, and 1¼ inches below, that is just above the lower edge of the snowbank stretching out into the stream, you will have a composition with very pleasing lines. The exposure is satisfactory, and the work is technically good.

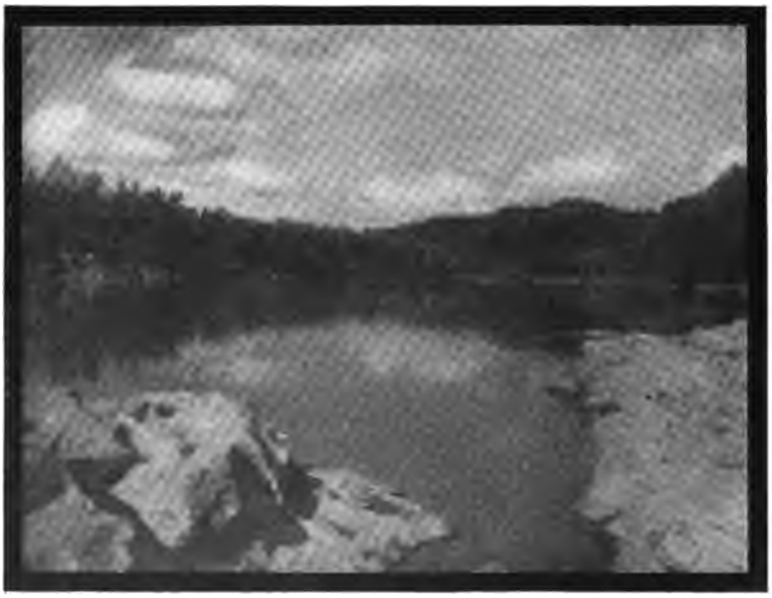
428. A. Hitpas. — We do not find much to commend in your stiff and woodeny portrait of a young lady posed against a brick wall. There is no reason for cutting off the top of her hat, and the position of the right arm makes it appear as if the young lady had but one arm. The background of mottled bricks is altogether too insistent with its harsh rectangular lines.

429. G. W. Burchnell. — "A Portrait Study." You had here a rather attractive model, but it does not seem to us that the pose is as effective as you might have made. The flowing hair is too stiffly and formally brought down to cover both shoulders. If it had fallen more naturally behind the shoulders with perhaps a stray lock or two coming forward it would have been more interesting. The drapery also is crudely placed. We know from experience that drapery naturally falls in vertical folds and these horizontal folds show immediately that the composition is not natural, and the arrangement is forced. Try always to have your drapery look natural and harmonious.

430. Miles J. Breuer. — "Calm" is a delightfully quiet and peaceful little landscape in which you have succeeded in making a picture of a difficult subject. The low and distant shores of the lake have in themselves no pictorial possibilities. They form a dark horizontal mass attractively dividing the picture space, but the clouds, the reflection, and the rocks in the foreground were all needed to supplement this mass. A restful and successful landscape.

(*The Portfolio was closed on February* 5)

413. PINES AND SNOW, SUNLIGHT



430. CALM MILES J. BREUER

SOCIETY NEWS.

Photographers Association of America. — The executive committee of the Photographers Association of America met in executive session at the Hotel Pfister, Milwaukee, Wis., January 12, 1910, to arrange for the thirtieth annual convention. All the officers were present, as follows: A. T. Proctor, president; G. W. Harris, 1st vice president; Ben Larrimer, 2d vice president; L. A. Dozer, treasurer; J. H. C. Evanoff, secretary.

The outgoing secretary handed in the following financial report: —

Total received for space	$3,272	
Total received for advertising. . .	945	
Total received from old account . .	12	
Paid to L. A. Dozer		$4,229
	$4,229	$4,229

Treasurer Dozer then handed in his account for the previous year, as follows: —

RECEIPTS

Cash on hand, January 1, 1909 . . .	$ 4,698.74
Received from memberships and dues .	4,054.50
Received from sale of ladies' pins . .	96.50
Received from secretary for advertising and floor space	4,229.00
	$13,078.74

EXPENDITURES

Paid out on vouchers, 842 to 932 inclusive	$6,595.52
Cash on hand, January 1, 1910 . . .	6,483.22
Total	$13,078.74

(Signed) L. A. Dozer, *Treasurer.*

President Proctor appointed J. H. C. Evanoff and Ben Larrimer as a committee to audit the accounts of the secretary and treasurer. The accounts were found correct and approved.

After a thorough canvass of the dates most suitable, the motion was made and seconded, that the thirtieth annual convention of the Photographers Association of America be held during the week of July 11, 1910, and the Auditorium in Milwaukee, Wis., was selected as the place of meeting.

The School of Photography having met with such favor at the previous two conventions, it was unanimously decided to again hold a School of Photography under the supervision of the most expert photographers that could be procured.

The Picture Exhibit. — As the non-competitive has proved itself entirely successful, the board decided to adopt the same policy for the convention of 1910.

Headquarters. — The Hotel Pfister was selected as official headquarters.

The Prize for Best Invention, etc. — The sum of one hundred dollars was set aside to be awarded to the best invention, process, apparatus, or appliance pertaining to photography, which has not heretofore been shown or exhibited at any previous national convention.

Publicity. — The secretary was instructed to arrange for a systematic plan of publicity, to begin at once, under the supervision of the executive board.

Congress of Photography. — Arrangements were made for the second meeting of the Congress of Photography, and the secretary instructed to call upon the state associations, to send their duly appointed delegates thereto.

Federation of Women Photographers. — The executive board decided to cooperate in every way with the plans submitted by the Federation of Women Photographers, — a branch of the P. A. of A. inaugurated at Rochester, 1909.

Commercial Photography Section. — On motion, it was decided to invite all commercial photographers to join the association and take part in the convention. A special commercial photographic display is being planned, providing sufficient participants can be obtained.

Entertainment. — The Milwaukee Photographers having announced that they had appointed a committee to look after the entertainment of the visiting photographers, the executive board decided to cooperate fully with their plans, and the entertainments promise to be entirely satisfactory.

General. — The various committees appointed by the president took up their work in detail, and laid careful foundations looking forward to a successful meeting.

Constitution. — The executive board desires to draw attention to the fact, that the 1910 convention of the P. A. of A. will be conducted under a revised constitution and by-laws, these revisions having been adopted at Rochester, 1909.

The following committees were appointed by the president, for 1910: —

Hotel & accommodations	Evanoff	Harris	Dozer
Decorations	Harris	Larrimer	Evanoff
Buttons	Dozer	Evanoff	Larrimer
Printing & advertising	Harris	Dozer	Evanoff
Press	Harris	Larrimer	Evanoff
Information	Dozer	Harris	Evanoff
Transportation	Evanoff	Dozer	Larrimer
Association Annual	Larrimer	Harris	Proctor
Local entertainment	Stein, Bangs, Bish, Reimer, Guttenstein, and Bandtell.		

J. H. C. Evanoff, *Secretary.*

The following are the rules for the exhibit at the National Convention at Milwaukee.

(1) Exhibitors are requested not to exceed three prints in their exhibits — no other restrictions.

(2) Application for exhibition space must be made to first vice-president, G. W. Harris, 1311 F. Street N. W., Washington, D. C.

(3) All exhibits must be sent prepaid to G. W. Harris, first vice-president, Milwaukee, Wis., care of Milwaukee Auditorium, and must reach Milwaukee on or before July 8, 1910. Any exhibit not having express charges prepaid will not be accepted.

(4) The association will not be responsible for any loss or damage to pictures in its charge, but special precaution will be taken by the committee to insure the safe return of all exhibits.

(5) No exhibits shall be removed from the hall until after the close of the convention. Exhibitors who desire to personally take charge of, or remove their exhibit, may do so only by permission of G. W. Harris, chairman of the Hanging Committee.

(6) This exhibition being a complimentary one, and the photographs being solicited with the understanding they are to be returned to the rightful owners, all exhibits will be returned to them intact at the close of the convention.

* * *

The annual mid-winter banquet of the Photographers of New England was held under the auspices of the P. A. of N. E. on January 25 at the Copley Square Hotel, Boston. In spite of the inclement nature of the weather more than sixty photographers from far and wide assembled and enjoyed a most pleasing evening. Numerous short speeches were made, those by Joxie and Parkinson easily taking the cake. After the various small fry had made their speeches, the big gun of the evening, Prof. A. H. Griffiths, of Detroit, delivered a most inspiring address. It was announced that the New England Convention would be held in Boston the week beginning July 26.

* * *

The Jamestown Camera Club has just issued its year-book for 1909–10. This excellent little pamphlet is a model which other clubs might do well to follow. It gives a list of the officers of the club, its committees and members, the constitution and by-laws, and the program for the year. The club has secured enough advertising to pay the cost of production of this book and give the club subscriptions to all the photographic magazines. It bespeaks enthusiasm and interest in club affairs which is highly commendable.

* * *

Boston Camera Club. — At a meeting of the executive committee of the Boston Camera Club held February 1, the following committees were appointed for the year 1910. Rooms: Messrs. Saunderson (chairman), Read, Hildreth, Boyd, and Manson. Entertainment: Messrs. Read (chairman), Weaver, Davis, Washburn, Titus, Corbett, and Adams. Exhibition: Messrs. Hubbard (chairman), Wing, Riley, Fisher, Fowler, Dana, Fraprie, and Peabody. Membership: Messrs. Fowler (chairman), Chandler, and Hildreth. Publicity: Messrs. Hubbard (chairman), Kellogg, Fraprie, and Riley.

* * *

We are in receipt of the following letter from the Missouri Camera Club.

"The Missouri Camera Club of St. Louis has enjoyed an active fall and winter. Establishment in new quarters with greater facilities for the members has resulted in increased interest. The club is now fully equipped with a studio and portrait camera, dark room with enlarging lantern, and a stereopticon.

"One outing in the fall, including a cross-country tramp, was somewhat marred by unsuitable weather, but the presence of good fellowship compensated in full measure for any lack of photographic results.

"Interest in lantern slide work is on the increase. During the past two months we have enjoyed viewing the work, through exchange of slides, of the Wisconsin and Toledo clubs. Arrangements have been made for exchange with the Akron Club, and we hope to continue the good work through Trinidad, New York, and Chicago.

"The annual exhibit of the club was on view throughout the week of January 17, and attracted wide-spread attention.

"The display consisted of ninety-two frames, and was universally conceded to be the best of the five annual exhibits held by the club. Several additions to the membership list have resulted, and more are expected.

"We have been allotted the Sixth American Salon for the week of March 5. The exhibit will be held, as in previous years, in the gallery of the Artists' Guild, and we fully expect a continuation of the interest manifested by the public in the past.

"The club looks forward to an active year, and most cordially repeats its invitation to all fellow-workers to come in and join with us. Our rooms are located in the Euclid Building, McPherson and Euclid avenues, St. Louis."

THE POSTAL PHOTOGRAPHIC CLUB, MONTHLY BULLETIN. — The Album for February, 1910, was issued February 1, 1910. It contains twenty-eight prints. According to latest advices the Albums now *en route* were located as follows: Album for October, 1909, at New Bedford, Mass.; Albums for November and December, 1909, at Burlington, Vt.; Album for January, 1910, at Ithaca, N. Y. Since the issue of the Bulletin for January, 1910, Mr. Thomas H. Holmes and Mrs. Flora M. Colman have resigned from the club. The club is full and there is one on the "waiting list." Fifteen members failed to furnish prints for the February Album and prints were received from one member too late for insertion in that Album. It should be remembered that prints are required to be sent to the secretary on or before the 15th of every month, except July and August. Very many prints are needed for the next Album and as the present month is a very short one, it is desirable that prints be in the hands of the secretary not later than February 20, in order to insure their appearance in the March Album. Awards of certificates of prize-winning prints are announced, viz.: Mr. J. Will Palmer, of Nashua, N. H., for print No. 26, "From the Case at the Foot of the Stairs"; Album for April, 1909; First Technical Merit. Mr. William T. Knox, of New York City, for print No. 5, "Portrait of Miss G;" Album for May, 1909; First Technical Merit.

G. A. BRANDT, *Secretary*.

* * *

THE Toronto Camera Club will hold its annual Salon from the 4th to the 9th of April. A prospectus giving full details will probably be issued before this number is printed, and will be gladly sent on application by Hugh Neilson, the secretary, who may be addressed at 2 Gould Street, Toronto, Canada.

* * *

THE regular meeting of the Boston Camera Club was held Monday, February 7. At the short business meeting the following active members were elected: G. G. Cross, Chester F. Stiles, Wright Webb, and J. F. Beverly. After the business meeting a very interesting talk on "Maple Sugar Making in Vermont" was given by Mr. Cochrane. This lecture portrayed maple sugar making in all its forms, from the most rudimentary methods to those involving the most modern and improved apparatus. Some of the slides had pictorial merit of a high degree, and the talk was thoroughly enjoyed by the members, to many of whom it brought back recollections of childhood's happy days in the old Green Mountain State. In addition to this lecture a collection of Interchange Slides from Washington, D. C., and Tacoma, Wash., was displayed. The quality of these slides was not of the highest in subject, although technically many were most excellent.

* * *

EDUARD J. STEICHEN, Photo Secessionist and colorist, had on exhibition during the latter half of January a tripartite show in New York City. At the Montross Gallery from January 17 to 29 he displayed thirty-one paintings and twenty-seven photographs. At the Little Galleries from January 21 to February 5 a selection of about thirty of his autochromes was on exhibition. We cannot speak of this show from personal inspection, but from other visitors we gather that Mr. Steichen has grown in his painting, shedding some of the exuberance of youth and settling down to a saner and more mature vision and technique. Of his most recent photographs, the "Balzacs," we can but feel that he is playing with the beholder. Of his autochromes nothing but praise can be spoken. No one has equaled him in mastery of this treacherous, and at its best glorious process.

* * *

A PHOTOGRAPHIC interregnum will now supervene at the Little Galleries. For some weeks or months these penetralia will behold paintings and drawings, etchings and pastels, by domestic and exotic exponents of all that is strangest and newest, but most bizarre in art. Later will be shown photographs by Miss Brigman and Frank Eugene, and then again until the end of the season etchings and paintings. We see this tendency also reflected in No. 29 of *Camera Work*, which beside some marvelous photogravures of Seeley's latest work, shows reproductions of a number of caricatures by Marius De Zayas. In all truth it does not seem to us that these horrible travesties of humanity are worthy of the painstaking skill which has been given to their reproduction in photogravure. The text matter of this beautiful quarterly also displays wanderings of a violent nature from the photographic path, a number of pages having been devoted to an effusion entitled "The Sphinx," and described as an orchestral rhapsody from "Overgod," a symphonic drama of evolution by Leonard van Noppen.

CHAS. E. DAWSON.

OUR TABLE.

Material for examination and books for review may be sent to Frank R. Fraprie, 6 Beacon Street, Boston, Mass. Any book reviewed will be supplied by our Boston office at the price mentioned.

Deutscher Camera Almanach: A Yearbook of Photography of Our Time. Edited by Otto Ewel. Berlin, Gustav Schmidt. Sixth Volume, 1910. Price, $1.25, paper; $1.50, cloth.

This annual manages to be a surprising number of different things at once. It contains one hundred and twenty-eight excellent reproductions, some from the Dresden Exhibition, some under the title "From the Harvest of the Year," others illustrating the points raised in various articles; and seventeen articles on the most varied photographic subjects from balloon photography to the decorative element in photography, from halation to a new method for multicolor gum printing. To these are added a short but judiciously selected series of notes on the advances of photography in 1909, a bibliography for 1909, and, among the advertising pages, descriptions of novel apparatus and materials introduced during the year. Obviously the annual lacks the strongly individual and decided character of the purely pictorial yearbooks; on the other hand it undoubtedly appeals to a much wider circle of readers. Few of the illustrations have appeared in the other annuals; and it presents among many other pictures strong and interesting work by A. H. Blake, J. Rothberger, P. Dubreuil, W. Bandelow, W. Cadby, C. Laguarde, and E. A. Loeb, which will be new to most American readers. All the articles are readable, some are excellent; space forbids detailed comment. The volume is splendidly printed, attractive, and, in spite of the large and varied ground it covers, extremely handy in form. In recommending it to our readers as containing much material of interest to amateur photographers of the most diverse aims, we cannot refrain from suggesting, in particular, that Dr. Quedenfeldt's masterly article on "Der Staubfarbengummidruck" (which we will not spoil by translating) is likely to lead to increased activity in certain Philadelphia photographic circles. Certainly the addition of the impressionistic theory of color to the already apparently considerable charms of multicolor gum printing cannot but add to the seductiveness (incomprehensible, we must admit, to us) of this pursuit! — F. A. L.

The Art of the Metropolitan Museum of New York. By David C. Preyer, A. M. Boston, L. C. Page & Co., 1909. Price, $2 net; postage 20 cents.

Mr. Preyer's beautifully illustrated volume is not a guide-book to the famous museum of which it is written. It does more than list the treasures contained in this magnificent collection, which is rapidly becoming one of the great museums of the world. It offers in its pages almost a history of art, taking up section by section, and country by country, the subjects exhibited, discussing the development of the art or craft under consideration, and showing what relation the collections at the Metropolitan have to it. Where a famous painter whose work is needful to an understanding of the school is not represented, it nevertheless gives him sufficient space to make clear his relation to the group to which he belongs. No doubt the book will be of maximum utility to those who have access to the collection that it represents, yet it should be of great value to every student and lover of art for its illustrations and for its judicious treatment of the disputed questions which are omnipresent in the study of art.

* * *

Landscape Painting. By Birge Harrison; with twenty-four reproductions of representative pictures. New York, Chas. Scribner & Sons, 1909. Price, $1.50 net; $1.67 post-paid.

Mr. Harrison, whose authority on the subject of landscape painting is unquestioned, has brought together in the form of a book some impromptu talks on landscape painting which he has given in the course of his instruction at the Art Student's League. Some of the chapters have already appeared in magazine pages, but are now given permanent form between the covers of a book. While the book is written for landscape painters, there is hardly a word in it which is not as valuable to a landscape photographer. The chapters on pigment and mural painting do not primarily, of course, appeal to the camera worker, but even in these chapters he will find much which may be of value to him, in his work. A careful reading of this book will give many a photographer a new light on the vexed question of focus. He will discover that by the general means of soft focus he is attempting to solve various problems of which the painter is cognizant, and to the solution of which he applies such terms as "lost edge," "refraction," etc. The chapter headed "On Vision" will also give the photographer new thoughts on this question of fuzziness. Of course when Mr. Harrison states the well-known fact that the eye sees but one point absolutely sharp at a time, and consequently says only one object in a picture should be absolutely sharp, with everything else becoming more and more indistinct toward the corners, he is speaking of canvases of large sizes, and the problem is not quite comparable to the small photographic print. But as the question is still debatable in painting, so it is in photography, and one man's point of view is not final, though affording valuable food for thought. The chapters on "Values," "Composition," "Temperament," and "The True Impressionism" are full of meat for every photographer, and there is not a page in the book that is not worth reading and re-reading.

* * *

THE AMERICAN ANNUAL OF PHOTOGRAPHY, 1910. By John A. Tennant. New York, Tennant & Ward 1910. Price, paper 75 cents, postage 15 cents; cloth, $1.25, postage 20 cents.

The "American Annual" this year is made up on the old familiar plan: a series of articles contributed by some sixty or seventy authors, and a selection of prints by workers both here and abroad. As to the value of the articles we have no criticism. Some are trivial, which is to be expected from writers who have for five, ten, or twenty years racked their brains annually to produce an article for the Annual; the most are of great value, and all of them bear on present-day problems. They are well worth the price of the book, without its other features. The collection of formulas and processes is also complete and useful and an invaluable addition to every photographic library.

When we come to the pictorial part of the volume, however, we are sorry to say that it does not include a representative collection of American work. If a foreigner were to judge the present state of American pictorial photography by this book, he would get a very false idea. While the book shows the work of many well-known amateurs, it does not contain many pictures of the highest merit, and it contains a very large number of second or third class pictures. The work of the Photo-Secession is conspicuous by its absence, and so is the work of the Photo-Pictorialists. No record of American photography in 1910 can assume to be complete without work from both of these clubs. Compared with "Photograms of the Year" or with "Die Photographische Kunst" and the "Deutscher Kamera Almanach" this book pictorially is far inferior. We wish that it could be otherwise, for there is certainly material enough in the United States to produce a worthy annual, and we are sure that it could be had for reproduction.

* * *

BURROUGHS, WELLCOME & CO. are well aware of the importance of furnishing to photographic readers supplementary information in regard to their products. There lies on our desk a pleasing little booklet entitled "Photographic Facts and Fallacies" which they have prepared for free distribution, and which gives new lights on photographic goods which should be of great value to every photographer. The book is free, and we recommend that every reader who has not received a copy shall send for one, mentioning AMERICAN PHOTOGRAPHY when he writes. Among the novelties treated of in this book is a Tabloid prepared for the Ozobrome process, a very convenient method of preparation of this formula, which has enabled photographers to do carbon printing by artificial light.

* * *

THE Leto Photo Materials Co. has recently issued a little booklet entitled "Perfect Prints," by W. L. F. Wastell, a name which should be familiar to our readers. This gives simple and thorough directions for an excellent method of printing. It may be had from J. L. Lewis, 379 Sixth Avenue, New York City, on application.

* * *

PROBABLY many of our readers have taken advantage of the offer advertised by Henry Greenwood & Co. and have sent for a sample copy of the "B. J.," as it is familiarly called in England. We are sure that this will, in many cases, lead to subscriptions to this valuable periodical, which is the standard record of the scientific progress of photography in all countries. The number for December 31, 1909, is lying on our desk and contains an index which for completeness and thoroughness cannot be beaten. It renders all the contents of the volume instantly accessible to the interested seeker for knowledge.

* * *

THE literature used by professional photographers to appeal to their customers is a most important part of professional business methods. We have on our desk at the present moment a number of specimens of this kind which we will briefly review. We have reproduced herewith one of these in greatly reduced form. This is a New Year's greeting sent out by the Harris-Ewing Studio of Washington, D. C., and portrays Mr. Harris, first vice-president of the Photographers' Association of America, with one of his distinguished patrons, whose identity we will allow the readers to guess. This clever pen-and-ink sketch was photographed, printed on gaslight paper, and distributed among customers of the studio.

J. B. Schriever of Scranton, Pa., well known in the photographic profession by his presidency of the American School of Art and Photography, and by his editorship of the "Complete Self Instructing Library of Practical Photography," has issued a most sumptuous booklet showing all grades of his work. This consists of eight pages of text on cream-colored antique paper, interleaved with twelve pages of the finest coated white stock with reproductions of various classes of his work, showing the methods of mounting and a number of views of his studio. The whole is bound in a leatheroid cover, on which his name is printed in gold. This is too expensive to be sent out except to high-class trade, but it is an excellent sample of a booklet designed for wealthy customers.

J. C. Strauss of St. Louis issues a long and narrow folder called "Strauss, His Book," which seems to be, from the first page, only one of a series. It is beautifully printed in two colors in a tall and narrow format, shows reproductions of his pictures and scenes from the studio, and has enough reading matter of a bright and original nature to hold the attention of the reader for some time. A study of these two booklets will doubtless afford many valuable advertising ideas to many a professional who wonders how to increase his business.

* * *

THE coming summer will be the best season postcards ever had, so get in early with your new cards. No racks are complete without the local views.

If you are in doubt where to place your order for view cards, write the National Colortype Co. of Cincinnati, Ohio, for their samples.

They are the first makers of the hand-colored cards in America, old enough to know good cards and young enough to skilfully prepare them.

* * *

ILFORD LTD.—The balance sheet for the year of this well-known English firm, ending October 31, 1909, shows a profit for the year of £33,618 8*s.* 11*d.* This, with £3,648 13*s.* 3*d.* brought forward from last year, gives a total of £37,267 2*s.* 2*d.* After paying a dividend of six per cent on preference shares, amounting to £11,400, there is a balance of £25,867 2*s.* 2*d.* £12,000 of this amount is set aside for writing down goodwill, investments, plant, etc., and a dividend of six per cent, amounting to £11,400, will be paid on the ordinary shares, for the year ending October 31, 1909. The amount to be carried forward is £2,467 2*s.* 2*d.* We congratulate the management most heartily on a notable achievement accomplished in the face of marked depression in trade generally, and the photographic trade in particular.

* * *

WE are asked by The Taylor-Hobson Company to announce that their series II Cooke anastigmats may now be obtained to order with extension lenses somewhat like those furnished for the other series. By removing the front glass and substituting another, the entire focal length is increased. Thus, from the same point of view, the photographer obtains larger images of distant objects. These extension lenses increase the size of image about fifty per cent; for example: an object taken with the normal lens, and two inches long in the photograph, is, from the same position, made three inches long with the extension lens. Better results are obtained than with the separate portions of other makes, practically two complete anastigmats being available. Present users should note that their series II lenses may be fitted with these new extensions, but the register number of the lens should be given with the order. Extension lenses for Cooke anastigmats other than the series II, have long been used, the back glass having hitherto been the one replaced. The series II are the only lenses which permit the change at the front.

* * *

VOIGTLÄNDER & SOHN OPTICAL WORKS announce to the trade that they have established a new branch office at 617–631 West Jackson Blvd., Chicago, where a complete line of their well-known lenses, cameras, binoculars, telescopes, microscopes, etc., will be carried in stock. This new branch will be able to fill orders from the territory west of Ohio in much shorter time than previously. The New York office will remain at 225 Fifth Avenue, as previously, but the accounting department will be removed to Chicago.

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As the patent on the manufacture of metol has expired, its production is free to everybody. The firm of Schering & Glatz is now offering under the trademarked name of satrapol, monomethyl-para-amidophenol-sulphate, a developer of the same high standard purity as their well-known pyro and other products. This firm is offering to the American public an excellent line of photographic chemicals, among them Schering's varitone tablets. These tablets will tone bromide and gaslight papers, as well as lantern slides, to green, brown, red, or blue. After thorough washing, the prints are immersed in a solution of the proper tablet, in which they change to the desired color in about three minutes and are then thoroughly washed. An assortment for producing all four colors is sold at 75 cents.

* * *

AMONG the new importations of J. L. Lewis, 379 Sixth Avenue, New York, we note Cream Antique Seltona, a new grade of this justly celebrated paper, well adapted to produce artistic prints. This paper is gaining ground among both professionals and amateurs, and with the large variety of surfaces and weights which is offered, every need of the photographer can be filled.

* * *

IF you want to know how to develop plates or paper of any brand on the market, with a developer which contains metol, by all means send to the Berlin Aniline Works, 215 Water Street, New York, for their "Agfa Metol Formulas," twenty-four pages of solid directions for making up developers for every possible contingency.

WITH THE CAMERA. — Notes from the Illinois College of Photography. The champion long-distance student for December was Mr. Alfred Luke Brooks, a native of Montevideo, Uruguay, South America, who came something over six thousand miles to the Bissell Colleges, a journey of twenty-five days.

The students held a grand clam and oyster bake on the banks of Lake Kanagge in December, and devoured about a barrel of the bivalves which they imported for the occasion.

The Y. M. C. A. held its meeting for election of officers last month, and Mr. Harris Dante was elected president, Mr. Dan Hill, vice-president, and Mr. Frank Loy, secretary.

We have just heard from several students who have located since leaving the college: Mr. W. B. Souers of 1908 has a studio in Missouri; Mr. O. A. Lauritson of 1907 is located at Larimore, N. D.; Mr. C. P. Winther of 1907 is engaged in the business at Hamilton, Mont.; and Miss Maude Shaul of 1907 has purchased a studio at Concordia, Kans.

Mr. R. E. Godfrey of British Columbia, and Mrs. Harriet B. Culley, students of the past year, were married last month at Peoria, Ill., thereby consummating another college romance.

The college sophist has discovered that the arrival of Mr. Thomas Hill of Canada in addition to our Mr. Dan Hill of West Virginia gives us the impossible combination of two Hills without a valet. Q. E. D.

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THERE was recently introduced in England by the firm of O. Sichel & Co., 52 Bunhill Row, London, E. C., a most interesting process, by means of which there are performed at one operation a number of pieces of work of great interest to every professional photographer. This is called Morgan's Patent System of Dry Mounting, Plate Marking, and Embossing at one pressure. The wet prints are coated immediately after being taken from the washing water with a mounting material and when bone dry are placed in position on a plain mount. They are then put into the hot press which is properly provided with dies, and which with one pressure fastens the print to the mount, plate-sinks it, with a raised border if necessary, and embosses the photographer's trade mark upon it. The great advantage of the system is that the professional photographer can carry in stock a few varieties of boards or paper and make from them at will varied designs of embossed folders in any size or quality which he may wish. This process has been exhibited under the auspices of the *British Journal of Photography* and the Royal Photographic Society, and has received enthusiastic commendations. It is expected that this process will be on the American market within a few weeks, and in the meantime we understand that Mr. H. Snowden Ward will be able to give full information about the process while he is in the United States.

MR. H. SNOWDEN WARD informs us that although he has relinquished the editorship of the *Photographic Monthly*, founded by Mrs. Ward and himself in January, 1894, the change will leave him more (not less) closely in touch with technical and pictorial photography. He will continue to contribute to his old magazine, and will also contribute to the principal British weeklies. He also expects to spend at least three months at the beginning of each year in the United States and Canada, lecturing and in the interests of the *Process Engraver's Monthly* and of *Photograms of the Year*, which he will continue to edit. During January, February, and March his address will be 122 West 25th Street, New York.

* * *

THE Wynne Infallible Exposure Meter which was for many years advertised in the columns of AMERICAN PHOTOGRAPHY has for some months not been obtainable in the United States. We understand that arrangements have now been made whereby George Murphy, of 57 East 9th Street, New York City, will stock this meter and supplies for it, and that the meter will soon be distributed throughout the photographic trade of the United States.

* * *

VACATION FOR RECREATION AND EDUCATION. — You are familiar with the famous school established years ago by Louis Agassiz on the Island of Penikese. An account of the opening exercises has been perpetuated in the tender, expressive poem, "The Prayer of Agassiz," by John Greenleaf Whittier.

The Agassiz Association, in honor of that great scientist, is, at Sound Beach, Conn., continuing, in name and in spirit, the work begun in his school. The second session will begin June 27, and will include courses for the general public and for children, as well as for technical students. Two daughters and a grandson of Louis Agassiz are among the many members interested in the establishment of this school and in the other work of the Agassiz Association, and have contributed liberally toward defraying the expenses.

President David Starr Jordan, of the Leland Stanford Junior University, California, is one of the trustees of the Agassiz Association and dean of the council. President Jordan was a pupil of Louis Agassiz at the Island of Penikese.

The school is established under one very novel condition, in that the price of tuition is left for the pupil to decide. The contributions last year ranged from 25 cents to $100, and the studies that were offered were those easily understood by a kindergartener or by the scientific specialist who came many miles to take special courses.

Further particulars may be obtained by addressing the Agassiz Association, Arcadia, Sound Beach, Conn.

CORRESPONDENCE.

This column is open so far as space will allow for the expression of readers' opinions on subjects of general interest. The Editors are not responsible for opinions thus expressed.

THE AMERICAN METHOD OF MOUNTING

122 East 25th Street, NEW YORK.
The Editor AMERICAN PHOTOGRAPHY:

Dear Sir, — Are not our friends, The Photo-Pictorialists of Buffalo, a little unfair when they say that "with some of them (the English) to label a thing 'American' is . . . the most convenient way of damning it"? Just before reading this I was assured by a very prominent American amateur that "the English photographic papers are always writing about American hogs." Really, this is not so.

When a thing is introduced into England from abroad, our usual method is to describe it as German, French, American, — as the case may be; and a geographical designation does not imply either approval or condemnation.

"The American style of mounting" or "multiple mounting" received the name "American" because it was introduced into England and popularized by Mr. F. Holland Day, of Boston, Mass., whose chief follower and pupil was Mr. Frederick H. Evans. The extent to which such mounting has been used in Britain by the best workers, and its principles explained and illustrated in the photographic press by Mr. Evans and many others, surely shows that it is not "damned."

Yours faithfully,
H. SNOWDEN WARD.

129 Bird Street, DORCHESTER, MASS.
EDITORS AMERICAN PHOTOGRAPHY:

Gentlemen, — In my article entitled "Enlarging upon Gaslight Paper" published in the December and January issues of your magazine, I neglected to designate a brand of paper that will result in very soft effects when such are desired, and a great many pictorialists find even the so-called soft working papers too contrasty when used with such a negative as gives beautiful results with platinum.

Special portrait Argo is primarily intended for use with intense negatives, giving normal results with same, but one may use this brand so as to get the softest possible effects or the reverse, as one elects to have it.

With a normal negative we may expose as with regular portrait Argo and on development in normal solution get an image of soft gray tone, or we may increase the exposure as much as four times and on development in solution diluted with once, twice, or thrice its volume in water, and well restrained with bromide, get contrast of varying degree up to and including normal black and white.

For the pictorialist I would especially recommend this brand of paper as it puts within his power to obtain the softest of soft prints or contrast in varied degree if desired. No other paper upon the market will do this to the same extent. Red label Cyko is excellent for average enlarging pictorial purpose and the most speedy on the market, but though especially made for soft effects, it is not soft enough with some negatives.

For average soft effects I would recommend red label Cyko and portrait Argo, but where an especially soft image is desired special portrait Argo is the medium to employ. Truly yours, JAMES THOMSON.

ORLEANS, NEB.

I find the reading matter and pictures in AMERICAN PHOTOGRAPHY very interesting and instructive, and look forward with eagerness for the next copy.

Yours very truly, E. H. WEBBER.

SOMERSET, KY.

Please renew my subscription. Think your magazine the best of its class in the United States. Wishing you continued success, I remain

Yours respectfully, N. H. MYERS.

STAR, TEXAS.

I will renew my subscription, as I don't think it can be beat! Yes sir! AMERICAN PHOTOGRAPHY is all right. It has done me lots of good.

Very truly yours, BASCOM PIERCE GOODE.

PASADENA, CALIF.

I think your magazine is as good as can be found.
ARTHUR J. THOMPSON.

PRACTICAL HINTS

Original short articles and discoveries are desired for this department, and $1 each will be paid for such as are accepted and published.

A **Method of Toning Blue-prints.** — The following is a method of toning blue-prints that was discovered by the writer, and which, so far as he is aware, is entirely original, and has never been described in print before.

The toning converts the blue, which is only becoming to a few marine scenes, into a gray, and it is, at times, difficult to tell the toned print from a photogravure.

The principle of the process is the conversion of part of the triferroso ferricyanide, which is the blue of the blue-print paper, into a mixture of ferroso ferric hydrate and cuperic ferro cyanide, — a red-colored salt, by the aid of an ammoniacal solution of cuperic nitrate. Other ammoniacal salts will answer, but with the writer, for some unexplained reason, the nitrate has given the best results. The strength of the solution, within reasonable limits, is immaterial; a good working solution may be made by dissolving 5 grams of cuperic nitrate in 100 cubic centimetres of water and cautiously adding ammonium hydrate until the precipitate, at first formed, is redissolved. The solution will be a rich cobalt blue. It is all important that the solution shall not contain an excess of ammonia over and above that required to dissolve the cuperic hydrate, formed by the ammonia when first added.

In conducting the process, almost any kind of blue-print paper may be used, although, if the amateur is at all handy with chemicals, the best results are obtained with home-made paper. Some discretion must be used in the selection of the paper to be sensitized. "Loaded" papers should be avoided, particularly if the "loading" is alkaline.

The photograph should be printed two or three shades darker than that required for the finished picture; it is then washed in running water until the soluble salts are washed out (ten minutes is usually enough), and then the ammoniacal copper solution is added. The print will at once turn from a blue to a mauve, on the addition of the solution, then to a gray, and finally, if the toning is sufficiently prolonged, to a red. The operator will of course stop the toning at the stage which, to him, gives the most pleasing effect. The process offers a large play of color, and some very beautiful effects may be obtained. One thing to be remembered is that the prints will be a trifle bluer after they have dried than when wet. Owing to the density of the color of the toning solution, it is necessary to pour it off from time to time during the toning, in order to see the true color of the print. When the toning is finished, the picture is washed in running water, which completes the operation. The toning solution may be used for a large number of prints; if a scum forms on the top, a few drops of ammonia will rectify it.

I have had prints toned by this process hanging on the walls of a room for over six years, and they show no signs of deterioration.

The process is not suited for making pictures from negatives showing a great deal of contrast, as by the time the very dark places have turned gray the light places are red.

Although much better results are obtained from fresh prints, I have successfully toned blue-prints, by this process, more than a year after they were made.—F. H. Mason, F.C.S.

* * *

Two **Dodges.** — Occasionally I want to print a white border around my pictures, and as masks are more or less a bother I made up the following: —

My plates are 5 x 7, so I cleaned the gelatine off of about a half dozen old negatives and purchased a roll of heavy black passe-partout tape. I made two strips 7 inches long and two strips 5 inches long, cutting the tapes ¼ inch wide, and pasted them evenly around the edges of one of the cleaned glasses. I then finished up the balance of the glasses with different sized openings down to 2 x 3 inches by overlapping the tapes. I find that by using sizes of glass two or three times larger than my regular sized negatives I can put the masked glass into a large size printing frame and by having plenty of spare space to move my negative around I often print smaller pictures (or only portions of the original negative), thereby getting some very pleasing effects by leaving out undesirable portions of the negative. These glass masks I find are much more durable and handy than the old style paper masks.

I also carry around a glass 2 x 4 inches (outside measurements), with pasted passe-partout tape on one side of the glass, and an opening in the center ¾ x 1½ inches. This glass I use as a finder when viewing my scene before setting up my camera. The method is to hold the glass up about a foot from the face and with both eyes look at the picture or scene through the small opening in the finder. By changing the point of view, which, by the way will be right side up, and not reversed (as in the camera), any one can readily see the convenience in such a contrivance.

These suggestions or ideas were original with me, although they may be in use by others. However, they are cheap, neat, and handy little affairs, and are good things to make up and try when you are not busy with developing, printing, and photographing masterpieces. — CLAUDE DAVIS MILLAR.

* * *

AN AMIDOL-HYDROQUINONE DEVELOPER. — In the *Photo-Revue* the following developer is recommended, especially for transparencies. Two solutions are required: —

A

Sodium sulphite	10 grs.	20 g.
Amidol	2½ grs.	5 g.
Water	1 oz.	1,000 c.c.s.

B

Hydroquinone	5 grs.	2 g.
Sodium sulphite	75 grs.	30 g.
Water	1 oz.	200 c.c.s.

To use, mix —

Solution A	1 oz.	100 c.c.s.
Solution B	34 min.	7 c.c.s.
Water	1 oz.	100 c.c.s.

The advantage of this developer is stated to be that the image develops very slowly and has a peculiar transparency. One may possibly be permitted to question the value of the addition of the hydroquinone, which has no developing action without an alkali.

* * *

FORMULAS FOR TONING BROMIDE prints and lantern slides were given at the Leith Amateur Photographic Association's meeting by Mr. W. J. Melville. The following are a selection of them: —

FOR RICH BROWN TONES

Potassium ferricyanide	5 grains
Potassium bromide	5 grains
Water	5 ounces

FOR DULL BROWN TONES

Potassium ferricyanide	20 grains
Ammonia (.880)	40 minims
Water	8 ounces

After bleaching with one of the above and washing in running water for from two to five minutes, the following is applied: —

Sodium sulphide	30 grains
Water	8 ounces

GREENISH BLUE TONES SUITABLE FOR SNOW SCENES

Uranium nitrate	6 grains
Water	4 ounces
Acetic acid	1 dram
Potassium ferricyanide	4 grains
Steel drops	5 minims

BLUE TONES SUITABLE FOR SNOW SCENES, ETC.

Water	5 ounces
Potassium ferricyanide	20 grains
Acetic acid	1 dram
Steel drops	10 minims

Prints or slides to be toned blue or green should be kept light, as these baths intensify.

* * *

PHOTOGRAPHING FLOWERS. — A note in *Apollo* insists on the advantage of a lens of long focus, rather large aperture, and almost without saying it will be understood that in all ordinary cases orthochromatic plates are desirable, and, moreover, a yellow screen should be used. Cut flowers and potted plants are often best photographed indoors, and it is aptly suggested that all required control of light and shade can be realized by following the lead of the professional photographer and building up a suitable cardboard structure round the flowers or plants. Obviously no concise rules can be given, as light or dark or medium must be used according to the effects desired. Indeed, all the various expedients of the professional portraitist, as reflectors, screens, or top shades, may serve in connection with floral photography, whether in a greenhouse or in an ordinary apartment.

* * *

BRILLIANT BLUE TONES ON BROMIDE PAPER. — Several formulas have been given for obtaining bright blue tones; the latest appears in *Das Bild*, and the color is certainly very bright and striking; it is specially suitable for some subjects, and for post-card work forms a pleasing variant from the interminable black and brown of ordinary bromide and gaslight papers. The prints should not be developed too much, thoroughly fixed and well washed, and, if dry, should be soaked in water. Two stock solutions are required: —

1.

Potassium ferricyanide	4 grs.	8 g.
Distilled water	1 oz.	1,000 c.c.s.

2.

Ammonia iron alum	50 grs.	100 g.
Hydrochloric acid	50 min.	100 c.c.s.
Distilled water	1 oz.	1,000 c.c.s.

For use, mix: —

No. 1..................	1 oz.....	20 c.c.s.
No. 2..................	½ oz.....	10 c.c.s.
Water..................	5 ozs....	100 c.c.s.

The prints should be immersed in this bath till the desired color is obtained, and then well washed till there is no longer any sign of yellowness of the whites. A much more transparent blue is obtained if the prints are then fixed in a ten per cent solution of hypo and again washed.

* * *

The Size of Pinholes. — At first sight, we must confess, a pinhole, or rather a needle hole, seems a difficult thing to measure with any degree of accuracy to any one who is not familiar with micrometric methods. Yet there are at least a couple of extremely easy plans, either of which can be employed, according to circumstances. If we have a packet of needles of which we do not know the size, but which we propose to use in making the hole, all we have to do is to arrange the needles, which are all of a size, side by side until they make a row half an inch or an inch wide, as the case may be. We count how many needles this requires, and at once know the diameter of a hole through which one of those needles will just pass. For example, if thirty-six needles are required to make a total width of half an inch, seventy-two will be one inch wide, and so we know the diameter of each to be 1-72 inch. The other plan is to make two of the holes in a piece of card, as accurately as we can, half an inch apart. By putting this in the lantern and enlarging up until, say, the two holes are 10 inches apart, we know that the diameter of each hole has been similarly enlarged twenty times, and, marking it off on the screen, we can turn up the light and measure the image so marked, which, divided by twenty, will give us the diameter of the hole.

* * *

Grain in Copying. — It is quite a mistake, though a common one, to suppose that a photograph of a print, a copy, must be at first glance markedly inferior to a direct print from the negative, and will be coarse and granular in appearance. A copy is never quite so good as a direct print, but there is no need for it to be a great deal worse, and in the matter of grain the difference may be very slight indeed. In fact, it is only in the falsity of its tones (a falsity inseparable from the process if the print copied is itself to be satisfactory to the eye, and not made specially to be rephotographed) that the copy should suffer. The cause for most of the grain which shows in copied prints is to be found in the improper lighting of the print that is to be copied. Instructions generally direct the lighting to be uniform on both sides, and they are sound enough as far as they go. But they overlook the difficulty of securing an even lighting, and the danger that, instead of doing away with grain, the result of using a strong light on each side of the print may be merely to make each little hillock on the paper surface cast two shadows instead of one. The photographer who has much copying to do will be wise if he turns his attention to lighting as far as possible from the front, getting even rather than powerful illumination, and, as far as possible, doing away with side lighting altogether. A few weeks ago we were present when some important documents on a very coarse-grained paper were photographed for a purpose where grain was most undesirable, and we were much interested in the means adopted by the photographer to get rid of it, — means which were surprisingly effective. The work was done at night, and the document to be photographed was placed at the end of a tunnel of cardboard blackened inside, which was generally used to keep off extraneous light when negatives were being copied. The end of the tunnel was covered with a piece of tissue paper, in which was a circular hole the size of the camera lens, which was inserted there. The illumination was magnesium ribbon, burnt all round the lens. In this way the lighting was almost exactly vertical, and it was hard to realize that so smooth and grainless a print as was obtained could by any possibility be made from so coarse an original. The plan need not be followed in its entirety, but a shield of cardboard or other similar material so placed that the great bulk of the light falling on the copy must fall almost direct should be of great service in avoiding grain. — *Photography.*

* * *

Burning Magnesium Ribbon. — Some workers find considerable difficulty in burning magnesium ribbon properly. It burns irregularly, and frequently goes out. If the length of ribbon is pinched slightly between a folded piece of emery paper and drawn through it once or twice, the film of oxide with which it is coated, which is the cause of the irregular burning, is removed, and there should be no further trouble.

* * *

Elastic and Impermeable Corks. — To render corks impervious to gases and at the same time to maintain the elasticity of the original material, has long been one of the minor problems to be solved in connection with the preservation of photographic chemicals. For example, soaking the corks in melted paraffin wax is quite satisfactory as far as making them impermeable is concerned, but the elasticity is so far reduced that a very exact fit is necessary. *Apollo* refers to a method by which the pores of the cork are filled with jelly kept moist and elastic by glycerine. To a solution of 5 grams of gelatine in 100 grams of water, an addition of 5 grams of glycerine is made, and the corks, suitably weighted, are allowed to remain in this for some hours, the temperature being, of course, maintained sufficiently to keep the gelatinous mixture in a fluid state. The saturated corks are now allowed to dry spontaneously.

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2. One or more prints may be sent in each month. Each print is judged on its own merit. Only one print from a contributor will be given an award in any month.
3. Prints must be sent to AMERICAN PHOTOGRAPHY, 6 Beacon Street, Boston, express or postage fully prepaid, to reach us on or before the closing date.
4. Prints MUST have nothing on back but sender's name and address, and title. All information, requests for return, and postage for return MUST be sent in a separate letter of notification.
5. Prints will be returned ONLY if request is made at time of entry, and if conditions of rule 4 are observed. We accept no responsibility for safe return or condition of prints, but will endeavor to pack safely and return in good condition.
6. It is requested that no prints or mounts larger than 8 x 10 be sent, as they are almost always damaged in transit by mail.
7. Each competitor agrees by making entries that any of his pictures may be reproduced, if awarded a prize or honorable mention, by the publishers of AMERICAN PHOTOGRAPHY.
8. Prizes of $7.50, $5.00, and $2.50 in value will be placed at the disposition of the judges each month. They are authorized to withhold one or more if the quality of the prints submitted is not satisfactory. Prizes will be paid in goods selected from the lists of any of our advertisers, books, or magazines. Winners are invited to notify us of their choice of prizes promptly after publication of the awards in the magazine.
9. Every contestant agrees to accept all conditions and awards, by entering pictures.

1910 COMPETITIONS

Month	Subject	Closes	Results Published
December	General	January 1, 1910	February Number
January	Landscapes	February 1, 1910	March Number
February	General	March 1, 1910	April Number
March	Water Scenes	April 1, 1910	May Number
April	General	May 1, 1910	June Number
May	Children	June 1, 1910	July Number
June	General	July 1, 1910	August Number
July	Flowers	August 1, 1910	September Number
August	General	September 1, 1910	October Number
September	Portraits	October 1, 1910	November Number
October	General	November 1, 1910	December Number
November	Still Life	December 1, 1910	January Number
December	General	January 1, 1911	February Number

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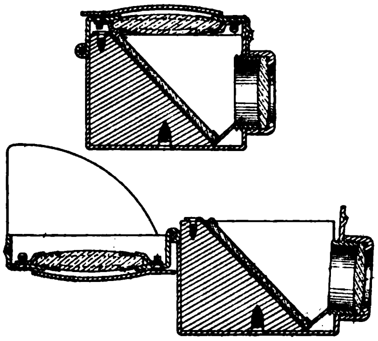
October 19, 1909

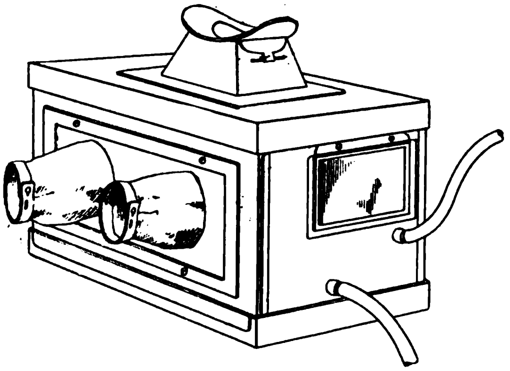
937,266. CAMERA FINDER. John A. Robertson, Rochester, N. Y.



The two illustrations show the finder closed and open, constructed especially for easy cleaning. The top lens frame with its metal rectangular mask is hinged at the back, and is latched at the front by a spring portion. By throwing the viewing lens back, as shown, access is given to both sides of it for cleaning, while the reflecting mirror and both sides of the objective are also readily accessible for the same purpose. The reflecting mirror can be easily removed by taking out the single screw at the left hand on the upper rear end of the finder.

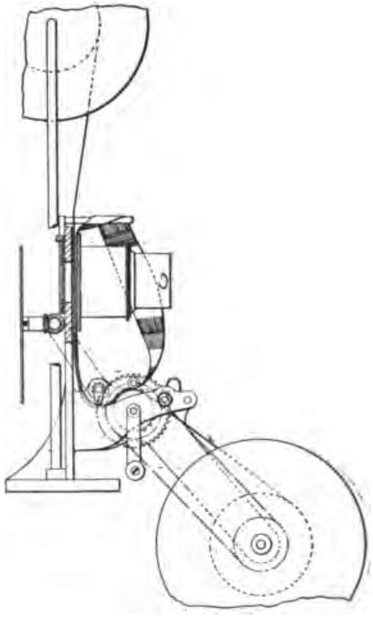
937,309. PHOTOGRAPHIC APPARATUS. John J. Kelly, New York, and Joseph F. Treerdell, Jersey City, N. J.

It consists of a collapsible metallic box made to come apart by having the ends bent to form a sort of tongue and groove, the tongue portion of one side sliding edgewise vertically into the groove on one end. After the sides are thus locked together to form a rectangular box, the top and bottom portions telescope over the upper and lower part of the box. In the sides are frames made for holding non-actinic glass windows or flexible material. In another side are flexible sleeves for the insertion of the hands of the operator to manipulate plates inside. On the upper part of the box is a viewing opening through which the operator can see what he is doing. Around this opening are sectional hinged pieces, which, when turned upward, form a cowl or hood, which fits tightly about the forehead to exclude the light. Arranged at one end of the box, on the interior, is a plate rack of peculiar construction for holding finished negatives. At the opposite end is a washing tank with an inlet and waste pipe for running water, and a fixing bath or tank. The developing tray is located on the floor of the box. The apparatus, as a whole, is strong and compact and can be quickly set up for use.



937,367. KINEMATOGRAPHIC APPARATUS. William Friese Greene, Brighton, England.

The object of this apparatus is to take and project moving pictures in the colors of nature by the three-color method. In the illustration a short endless flexible film having a successive series of color divisions thereon, composed of red, green, and blue violet is placed



in close contact in front of a sensitized film strip so the image to be photographed passes from the lens through the color film and then acts upon the sensitive film. From the moving picture negative thus obtained a positive strip is made. This is then put in the machine with the color film in contact with it as above stated, and is projected in colors upon a screen. The short color strip acts to bring each color rapidly on the screen in succession, causing them to merge and appear as one natural color to the eye. The short endless strip is shown bent to one side to prevent it from getting in front of the lens.

October 26, 1909.

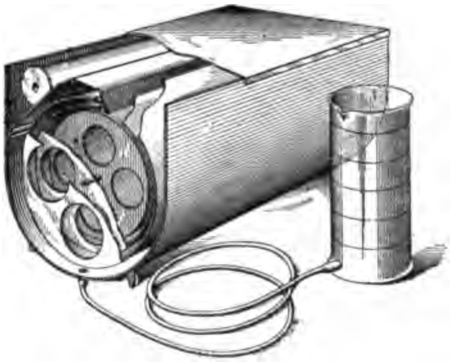
937,746. KINETOSCOPE. Edward L. Aiken, Orange, N. J.

The improvement relates to a special mechanism operated by frictional contact with a flywheel on the main crank shaft, by which a door or screen located between the film and source of light is automatically closed when the moving picture machine stops to intercept the heat from the light.

937,779. EXHIBITING APPARATUS FOR MOVING PICTURES. Frank L. Dyer, Montclair, and Delos Holden, West Orange, N. J.

It is an improvement on a previous patent. Two sets of films of the same subject are arranged to run through a machine, one in a horizontal direction and the other in a vertical direction. Light from a single source is projected directly through the vertical film and through or upon the horizontal film by a moving prism. The rays from the latter are diverted to overlap and merge in the picture of the vertical film on the screen or reflecting surface so that the resulting picture is said to be flickerless. The improvement avoids the greater number of reflecting surfaces in the prior patents.

938,287. DEVELOPING MACHINE FOR PHOTOGRAPHIC FILMS. Elizabeth A. Taylor, Steilacoom, Wash.



The illustration shows a rounded vessel at the bottom, covered at the top by a metal cover. Within the box are a series of three or more concentric cylinders carried on a central axis or shaft, one end of the latter projecting upon the exterior of the box having a square end over which an operating crank fits. The cylinders are slotted longitudinally, and in loading the slots are all arranged in a vertical line. A pin projecting downward through the top of the box (not shown) is adjusted to first enter the slot in the smallest cylinder. The exposed spool of film is shown on a shelf on the upper left side of the top of the box. The end of the film paper is carried down to the small cylinder and attached to the slot, then the crank is revolved on the outside until one revolution is made. The pin at the top is then raised out the distance of one cylinder and a second revolution unwinds the film over the second cylinder till the slot in the outer cylinder comes in contact with the pin. After this the pin is elevated further, which allows the three cylinders with the film between them to be rotated. The developer, water, and fixing solution are introduced successively from a receptacle outside by a rubber tube extending to the bottom of the tank. By elevating the receptacle the box may be filled with the solutions and emptied by having the receptacle lower than the tank.

November 2, 1910.

938,729. MOVING PICTURE APPARATUS. Henry Voege, St. Louis, Mo.

The invention relates to a peculiar form of screen on which the pictures are projected, and a screen or filter interposed between the lantern and reflecting screen for softening the effect of the reflected image. The reflecting screen has a curved (either concave, convex, or a combination) surface reflecting like a mirror to produce grotesque images of figures as they are projected from the moving film to the screen.

938,895. PICTURE EXHIBITING MACHINE. Francis H. Richards, Hartford, Conn.

Cards with pictures on both sides are suspended from horizontal arms supported at the upper end of a vertical shaft. The cards are held by spring clamps. A clock-work mechanism operates a traveling belt or device for rotating the arms at stated intervals to bring and hold the picture in front of a viewing lens, so arranged that the picture on one side is shown, then the picture on the other side. Peculiar devices are used to complete the exhibition of all the pictures in one position.

939,110. CONTROLLING SWITCH FOR MOVING PICTURE MACHINES. Tomotaka Taira, Fresno, Cal.

Inserted in the electric arc circuit is an automatic switch, arranged to cut off the current when the apparatus is working very slowly or nearly stops, to prevent the heat of the light from igniting the film. In a small box is a horizontal shaft, surrounding which is a rotatable sliding sleeve having a pully at one end and governor balls near the other. A belt from the crank-shaft of the machine passes over the small pulley. As the main crank is revolved at the proper speed to show the pictures, the governor balls fly out and force the end of the sleeve (in the form of a disk) against a contact electrode, thus completing automatically the electric circuit, which maintains the lamp in operation as long as the crank is in motion. As soon as the exhibit is over, the governor balls fall inward on slowing the machine, bringing the disk away from the electrode, which breaks the circuit.

939,274. KINETOSCOPIC APPARATUS. John E. Lagergren, New York, N. Y.

This idea consists in placing an intercepting pivotal plate between the light and the film which automatically cuts off the light when the operator releases the operating handle. A slight projection on the shank of the pivoted plate is held pressed lightly against the inner face of the operating gear crank wheel. The shaft slides laterally when the crank is pressed inward by the operator as the machine is rotated. This forces the intercepting plate outward out of the line of light and allows the pictures to be projected. As soon as the crank is released by the operator the spring, enveloping the crank-shaft, forces the latter back, at which time the pivoted light shield flies upward and cuts off the light.

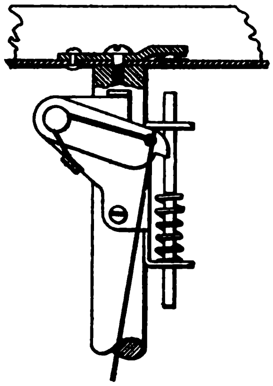
November 9, 1910

939,337. SYNCHRONIZING DEVICE FOR PICTURE MACHINES AND PHONOGRAPHS. Paul Seiler, Oakland, Cal.

The master crank gear meshes in a smaller pinion, which elevates and drops by another eccentric pinion, a pivoted contact bar so arranged that when thirteen moving pictures have been shown the phonograph electric circuit will be closed and continue to operate during the next series of pictures. As the pivoted contact bar falls it closes the electric circuit on two electrodes simultaneously. On one circuit is an electric clicker which makes a noise every time a series of thirteen pictures pass through the machine and gives a cue to the operator that pictures and phonograph properly synchronize with each other. Both machines are operated electrically.

939,354. FLASH-LIGHT APPARATUS. James W. Underwood, St. Louis, Mo.

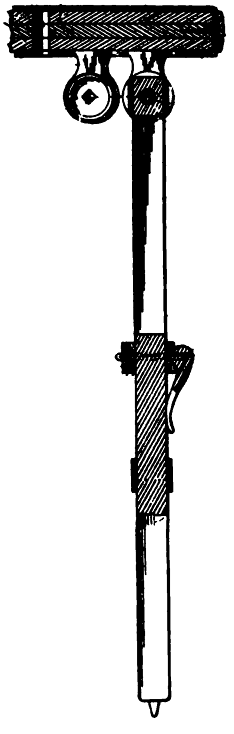
This is essentially a percussion device for igniting flash powder. The flash-light powder is placed in the pan-shaped part in the upper portion of the illustration. The exploding cap is inserted under the projection, shown in section, over the small hole in the pan. In an arm attached to the side of the handle is a sliding spring-operated percussion rod having a projection on one side against which the projecting end of the release trigger or lever impinges. A card or wire extends downward from the right end of the release lever. As the operator pulls downward on the cord the lever draws downward the percussion rod until its end slips past the projection on the rod. The actuating spring forces the rod quickly upward (like a hammer) and explodes the cap above, igniting the flash powder.



939,634. KINETOSCOPE. Alvah C. Roebuck, Chicago, Ill.

An improvement on a previous patent having a shutter located on a stationary axis and a carriage moveable to and from the shutter.

939,859. TRIPOD. James M. Pullen, Ozark, Mo.



The head of the tripod is of composite construction to prevent warping, and is encircled by a metal protecting band. The ears depending beneath the tripod head are made slightly convex, to have a spring action when the fastening or pivot bolt is put through the special form of the upper end of the tripod leg. The lower leg of the tripod is locked in any position by an eccentric lever shown on the side, which clamps together two cross plates having between them elastic material. The construction allows the different parts to be readily adjusted and reset when they become worn or loose.

November 16, 1909.

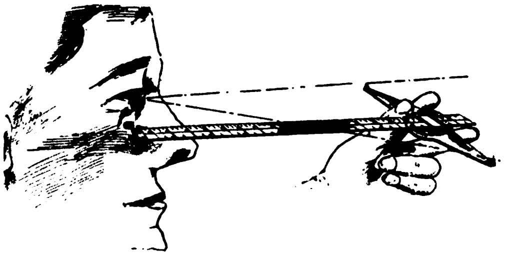
940,275. KINETOSCOPE. John J. Pink and Joseph Fletcher, Chicago, Ill.

The invention is an improvement on a previous patent and is designed to make the film-moving mechanism more adjustable to the variations of the perforations in the film due to a certain shrinkage in the film after it becomes old. The front portion of the mechanism is adjustably arranged on four main upright posts, operated by means of a special lever at the base for making the frame of the picture coincide with the spacing in each particular film used. There is also a two-section shutter connected by a flexible shaft and bevel gear to the main operating shaft, which intercepts the light during the transition of the film, and lastly an eccentric cam operating a frame adjustably pivoted at one end, for projecting the moving finger or spur into the film single perforation, pushing it downward, then withdrawing from the film. The movement can be quickly adjusted to suit the varied spacing apart of different sets of films.

940,504. PHOTOGRAPHER'S RANGE FINDER. George B. Brayton, Boston, Mass.

The object of this device is to ascertain the angle of view which will be included for a lens of known focus on a plate of a certain size, so that the camera can be set up on the spot with the certainty that all of the view previously located will be included on the plate, and save the time of making various trials with the camera. A light strip of metal, celuloid, or other material has marked on its surface a scale representing the focal length of the lens suitable or adjustable for the longest length of plate used; as, for example, an 8 x 10 plate. The No. 12 would be the proper position for the movable finder to be placed to correspond with a lens of 1¾ inches equivalent focus.

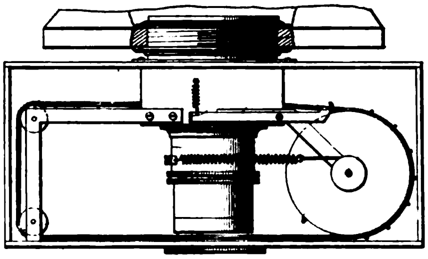
A cross gauge slides over the straight strip and can be revolved about its axis. On each end of the gauge are upright points. The operator simply places one end of the finder under his eye and by sighting the angle between the two points as shown in the broken lines observes quickly how much of the view will be included on the plate. To ascertain what will be included in taking in a high building, for example, the strip is turned edgewise and may be directed upward at an angle, the cross gauge is then rotated on its axis until it is parallel with the line of the front of the building, which determines quickly what part will be included.



November 23, 1909.

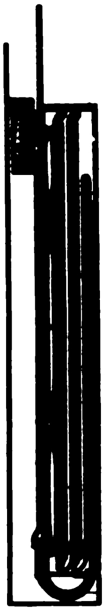
940,714. PHOTOGRAPHIC SHUTTER. Christian F. J. Niss, Chicago, Ill.

The shutter consists of an endless curtain with two apertures in it, one arranged to pass by the rear of the lens in our direction; the other to pass the front of the lens in the other direction, making a very quick exposure, more so than if one slot passed, as in the focal plane type of shutter. The shutter is propelled by a spur cylindrical roller whose projections engage in apertures in the margin of the curtain shutter. A spring is attached to a cord that winds around the axis of the actuating roll, the tension of which can be increased or decreased by a small lever on the outside. A release lever is observed on the rear, which, when pressed inward, allows the curtain cylinder to rapidly rotate. The curtain passes over two guide rollers observed on the left, which are adjustable. Means are provided for varying the width of the slot in the curtain. The whole is enclosed in an outer box, and special flange rings are provided for supporting the box and lens on the front camera lens board. The illustration is a top view looking down upon the mechanism with the cover of the shutter box removed.



941,103. FLAT FILM PACK. Johann G. Schneider, Würzburg, Germany.

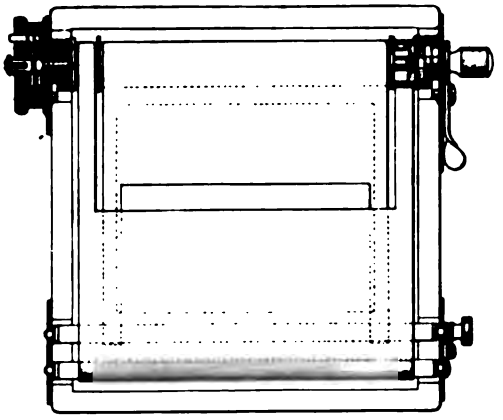
The distinguishing feature of this pack is location of the separate films upon one long carrying strip with sufficient space between the



ends of each film to allow the carrying strip to be folded between the ends of the films and form an opaque curtain to protect each film from the light when the front film is being exposed. There is also a device for separating the end of the exposed film from the carrying strip after it has been drawn down and upward behind the unexposed films. The pack is enclosed in metal receptacle with a suitable slide for making the exposure. In the illustration a plush brush arranged at the top prevents the light from entering past the projecting carrying strip. The folds of the carrying strip are shown at the top; the right fold is below the line of the others, showing how it is drawn down after exposure around the bottom guide below, then upward in the rear. The plan avoids having a separate flap of paper to manipulate each individual film.

941,126. ROLLER-BLIND FOR PHOTOGRAPHIC CAMERAS. Ernst Braubürger, Berlin, Germany.

This relates to an improvement on a previous patent, No. 833,916, for which the gears in the latter are substituted by a series of friction disks that are intercepted by abutments. There are two curtains operating in opposite directions. The actuating spring is located within the upper roll. There is a device in one end of the upper roll for regulating the slit opening of the shutter. The curtains, prior to exposure, are unwound from the upper roll upon the lower rolls, then the adjusting axial shaft on the right is rotated until the width of the exposing slot is regulated. Then the release trigger below shaft on the right is operated, which allows the curtains to fly upward to the top roller, one curtain being checked before the other, the latter rolling up further until checked by the abutments on the end. The construction is quite compact and easily manipulated.

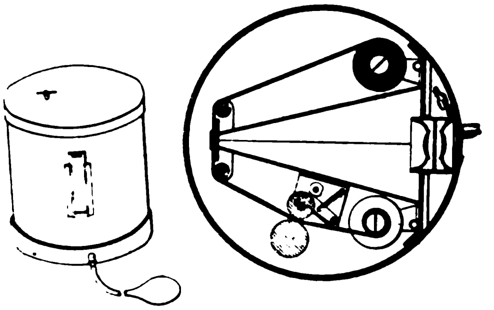


November 30, 1910.

941,960. KINEMATOGRAPH APPARATUS FOR THE PRODUCTION OF COLORED PICTURES. George A. Smith, Southwick, Brighton, England.

This patent covers the Smith Urban apparatus and system of projecting colored moving pictures which was exhibited at the Madison Square Garden Concert Hall, New York, about two months ago. On a panchromatic film with an ordinary moving picture camera twice as many images are made in a minute, through a shutter provided with red and green transparent windows or sectors as is the case with the plain black and white film. The film is of especial sensitiveness to these colors, in order to secure proper impressions. From the film negative thus obtained positive films with the pictures in black and white are produced by contact in the usual manner. Each picture will alternately be one either obtained through the green or red transparent window in the shutter. It is found if this monochrome film is placed in a moving picture stereopticon or lantern and there is interposed between the shutter and the film a rapidly revolving disk containing a red and green sector, the image on the screen will be reproduced in the colors of nature because of the blending of the red and green images due to the persistence of vision. To successfully appear as one colored image on the screen, the pictures must pass through the machine at the rate of thirty per second. The simplicity of the plan and the realistic coloring shown was one of the features that was especially noted at the New York exhibition.

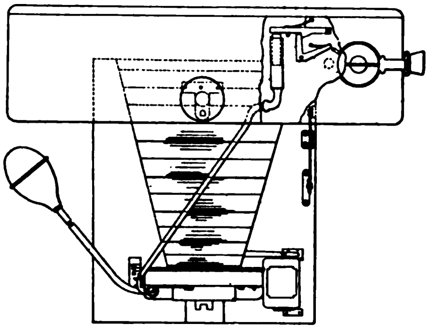
941,688. CAMERA. Ira O. Perring, Kalamazoo, Mich.



The two illustrations convey an idea of the general features of the camera. It is constructed on an expensive scale and is a panoramic camera. The perspective view illustrates the exterior, showing the starting bulb connected to a fixed base, which is secured to the tripod head by the usual tripod screw. A slide is shown in front of the lens aperture. The main propelling spring is located in the fixed base; by a suitable large fixed gear in the base meshing into a smaller gear on the operation of the release lever the entire body above the fixed base rotates around its axis, automatically opening and closing the shutter and at the same time drawing the film over a narrow slit behind the lens box. The exterior slide is drawn upward before the exposure is begun. The cross-sectional view shows the lenses on the right rigidly secured in a metal frame with a suitable diaphragm between them. The straight line directly to the left represents the image ray passing from the lens to the extremely narrow slot in a plate at the left or rear where the image ray strikes, the moving film passing from the film supply spool at the top over rolls to the receiving roll at the bottom. The angular sectional lines represent the form of the lens box. The two sectional rolls in the lower part of the illustration are for feeding or drawing the film forward to the receiving roll or spool; one has a spring pressure. All of the rolls are provided with gears at one end which gear from the fixed master gear in the fixed base, so that all operate definitely as the upper portion rotates. There are stops provided in the fixed base for governing the degree of rotation of the upper portion to any part of a circle it is desired to include in the view. When the moving body strikes these stops, the shutter is automatically closed. Pressure on the bulb permits the body to begin revolving and at the same time opens the exposing shutter, which remains open until the stop in the base impinges its lever, which closes the shutter and checks the rotation of the body.

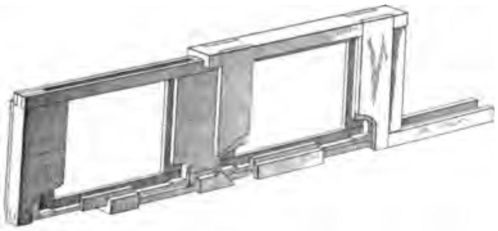
941,696. CAMERA. Harrison W. Conner, Boston, Mass.

The novelty of this invention is the display of an indicator in a chamber in the rear of the camera every time an exposure has been made by the shutter, in order to notify the operator against making a second exposure on the same plate or film. A supplementary branch air tube connected with usual shutter release tube leads to a secondary air piston at the back of the camera. When the shutter is released, the rear piston releases a small indicator, which flies outward under the colored window of the film holder. This warns the operator that the film must be wound off before exposing again. In rotating the film spool, to wind off the film,



a pin or other device carries the indicator inward out of view from the window and locks it in position till the next exposure is made.

941,712. STEREOPTICON-SLIDE CARRIER. Philo R. Hoy, Chicago, Ill.

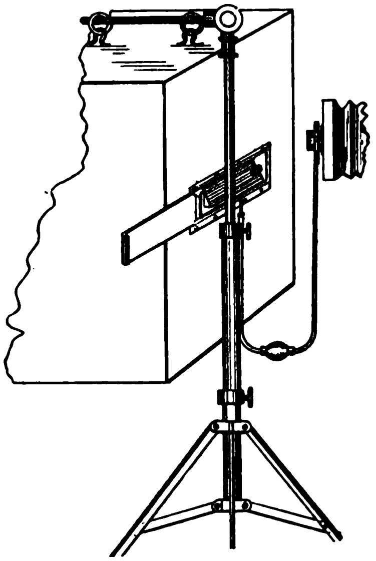


The improvement consists in arranging steps in the lower part of the carrier slightly below the usual floor for 3¼ x 3¼ slides to center in. The larger size 3¼ x 4 is seated slightly above the level of the small size and bridges the 3¼-inch depression. The slides are inserted at the top, then the slide frame is moved from one side to the other in changing.

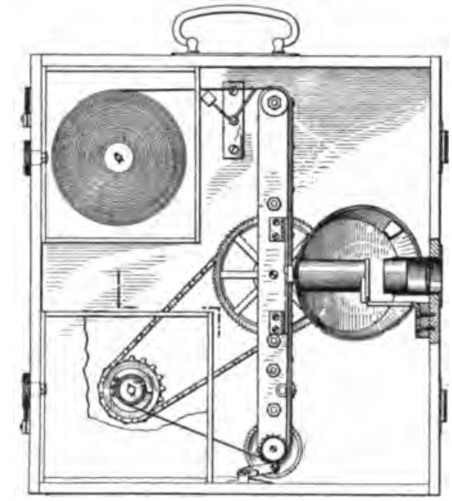
December 14, 1909.

942,941. FLASH-LIGHT APPARATUS. Jay Albert Smith, Chicago, Ill.

This is an improvement in flash-light apparatus, designed to allow successive exposures to be made with one flash-bag without allowing the smoke to escape, and also to secure the opening of the camera shutter at the same time as the burning of the flash powder. In the back of the flash-bag is a metal-framed opening, usually closed by a metal plate with a hooked end. This engages a similar hook in a flash-pan which slides into place of the metal cover. The flash-pan has a recessed shelf to hold the flash powder. In this shelf is a hole to be covered by a paper percussion cap to ignite the powder. When the bulb is pressed, it opens the camera shutter and also releases a trigger which drives the cap against an anvil above it and explodes the flash powder. The pan can then be removed and recharged indefinitely, the bag being always kept closed by either slide or flash-pan.

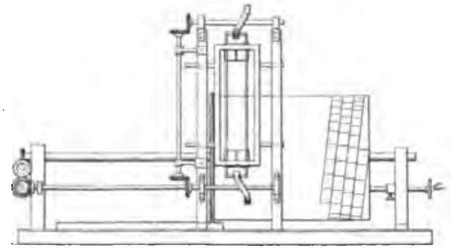


943,253. MOVING-PICTURE CAMERA. Hubert Meredith Jones, New York City.



This invention covers a means of taking practically sharp moving pictures upon a continually moving film. To secure this, the motion of the film is produced by a pair of elliptical gears, which cause it to move very rapidly between the exposures and very slowly while being exposed. The shutter consists of two concentric conical shells with square apertures which revolve in front of the lens. The size of the effective aperture is varied by changing the relative position of the two cones, thus making a larger or smaller opening.

943,326. ART OF PROJECTING CONTINUOUS PHOTOGRAPHIC PICTURES. Louis Leon Thurstone, Jamestown, N. Y.



In this invention the film containing the successive images is spirally wound on a transparent cylinder, illuminated within. As this cylinder revolves it slides lengthwise, so as to keep successive images in the same relative position. Geared so as work synchronously with this cylinder are two cam wheels adapted to laterally shift two pairs of reflecting mirrors in such a way that first one pair and then the other receives an image from the film band and project it through a suitable optical system to the screen. The film revolves continuously at a uniform rate, without wear or tear, and the images succeed each other on the screen without dark intervals, moving on it laterally and not vertically. The illustration shows the path of the light rays, one pair of mirrors only being indicated.

Camera Notes

ORGAN OF THE
CAMERA CLUB OF NEW YORK
121 West 68th Street

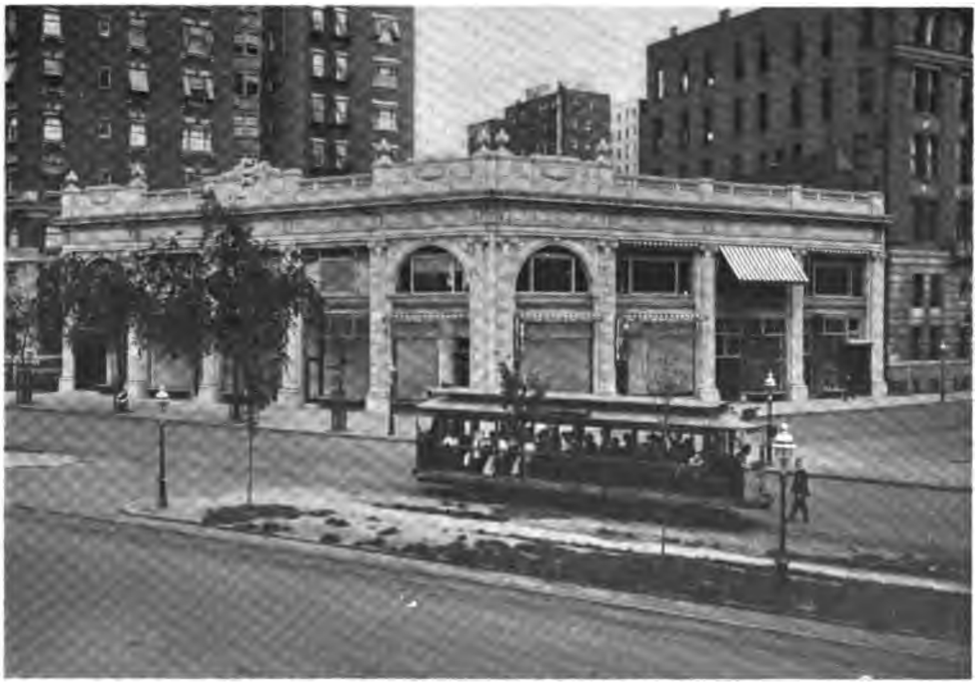
MARCH, 1910

Board Meeting. — The monthly meeting of the Board of Directors was held on Thursday evening, February 3. Reports of the officers and committees were presented. The treasurer's report showed that receipts from dues had been good, leaving a working balance of considerable proportion for the future. Two additional members were appointed on the House committee, Mr. Ferdinand Stark and Dr. Martin Degenhardt. Mr. James Stanley was appointed assistant secretary of the club. The new members elected were as follows: Active, Stepan de Kosenko, F. W. Dillingham, P. L. Anderson, M. D., and James Stanley. Non-resident, George Lander, of Greenwich, Conn.

It was voted to have an annual dinner and smoker early in March under the management of a special committee composed of W. E. Wilmerding, chairman, Ed. Heim, Chester A. Darling, W. J. Allison, and H. T. Rowley. It is probable that the dinner will be held in the club's large exhibition gallery.

By a special vote the freedom of the club rooms was extended to the members of the Orange Camera Club on Lincoln's Birthday, February 12.

Lantern Slide Exhibitions.—The slides sent by the Wisconsin Camera Club of Milwaukee, Wis., in exchange for the Camera Club's special set, were exhibited one or two evenings during the latter part of January, and were favorably commented upon. The Interchange set of the 1909 California Camera Club was shown the last of January, and was considered an excellent set in several particulars. On the evening of February 4 the Buffalo (N. Y.) Camera Club 1909 set was shown, having some good snow and sunset slides, also several remarkably fine animal pictures. The Wednesday evening test nights are becoming quite popular, when members bring in old and new slides to project on the screen for their own edification and visiting friends.



THE HOME OF THE CAMERA CLUB — 121 WEST 68th STREET, NEW YORK

AMERICAN PHOTOGRAPHY

VOL. IV. APRIL, 1910 No. 4

FRANK ROY FRAPRIE, F.R.P.S.
J. B. SCHRIEVER, SCRANTON

THE GUM-PLATINUM PROCESS

PAUL LEWIS ANDERSON

I HAVE read with much interest the articles by the Photo-Pictorialists of Buffalo which have recently appeared in this magazine, especially those dealing with carbon printing, for I have in the past used this medium extensively, and have now practically abandoned it in favor of a process which seems to me in every way superior to any other,—namely, platinum either alone or in conjunction with one or more superimposed printings of gum, the latter being the phase of which I shall treat in this article.

In writing of the reasons for, advantages in, and method of superimposing a gum-pigment print on a platinum print I wish first to disavow any claim to originality, for every method and formula that I shall suggest has been employed by other workers; so the most that I can say is that I have collected a certain amount of information and put it forward in the hope that it may benefit some one who is trying to find a printing medium that will help him to express himself satisfactorily, since gum-platinum is not a process to be desired by the maker of photographs, but is, rather, valuable to the maker of pictures. However, it can often be used commercially by those whose standing is such as to warrant a greater expenditure of time than is usual with the professional worker.

The chief objections usually put forward when straight gum printing is discussed are:—

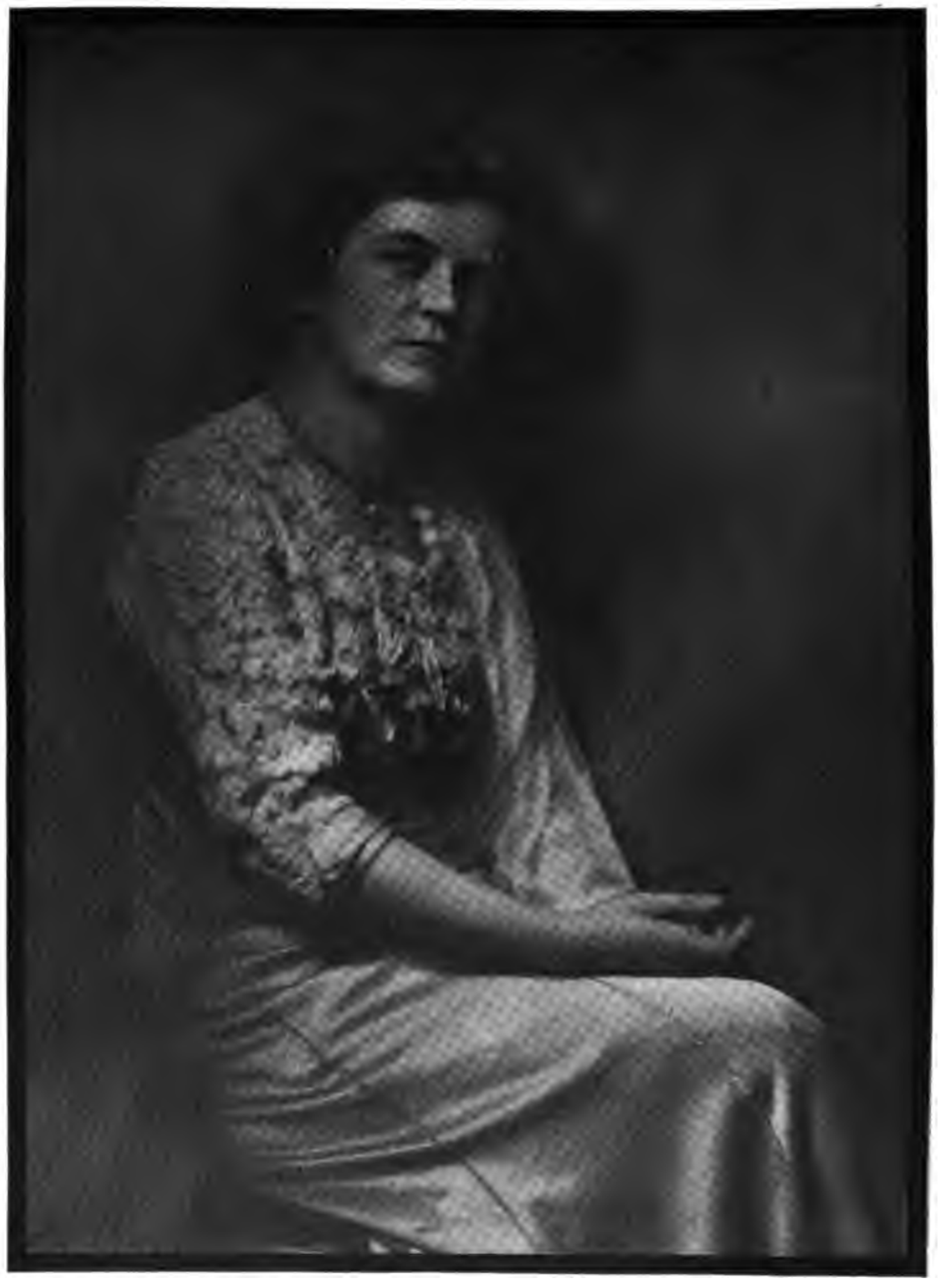
(1) It is difficult to handle.
(2) It is difficult to duplicate results.
(3) It is a short-scale process.
(4) The prints have a gritty or scratchy texture.

The first and second objections arise, I think, from the fact that many workers proceed in a haphazard fashion, deprecating any attempt at standardization of coating and printing as militating against "personal expression." A moment's consideration will serve to show the unreasonableness of such an attitude, since painters, whose constant effort is for personal expression, develop a standard technique and modify it as occasion requires. It is possible to acquire a perfect command of any medium by repeated hit-or-miss efforts, but only at the expense of a tremendous amount of wasted energy. The third fault is inherent in the process, unless multiple printing is resorted to,—a method which gives results equally as good as gum-platinum, but necessitates much more labor, since several printings of gum are required to give the tonal range of the single platinum print which forms the basis of the method under discussion. The fourth failing is due to the common practice of over-printing and applying violently abrasive methods of development, but does not hold when gentle development is employed. Thus it will be seen that none of these objections need hold in gum-platinum work.

The reasons for adding a gum printing to a platinum are fourfold:—

(1) To gain color.
(2) To increase the tonal range.
(3) To permit of modifying the relative values.
(4) As a corrective for under-printing or under-development of the
 negative (practically covered by (2)).

The first effect is exceedingly valuable, for it is the feeling of nearly all photographers that the monochromatic nature of our medium is a serious failing, and a constant effort is being made to overcome this fault, as may be inferred from the many different colors of carbon tissue on the market and from the many toning methods recommended for use with bromide, gaslight, and platinum prints. As regards the second point, a negative may easily be made especially on a



PORTRAIT
GEBRÜDER LÜTZEL, MUNICH
German Professional Section, Dresden Exposition

double-coated or extra heavily coated plate, which will have a scale exceeding the reproductive capacity of any medium that involves inspection by reflected light, but the gum coating may be so handled as greatly to increase the effective scale of the paper. This is not a great advantage, for carbon and straight platinum have a scale long enough for all practical purposes, and an over-full negative may always be shortened in scale by printing in combination with a soft contact positive, or by making a new negative by contact printing, having due regard to development in the second. Still, the additional range given by the gum coating is at times helpful. Taking up the third reason, it is at once apparent that by means of local development of the softened gum the relative values may be altered extensively and even upset most outrageously if the worker proceeds without a clear knowledge of what needs to be done. The first three of the above-mentioned points are bound up together in a manner that will be considered later when referring further to length of scale. The fourth point seems to need no explanation.

For some purposes, bromide, gaslight, kallitype, plain silver, and other miscellaneous processes are useful, but the four great printing methods, and the only ones whose permanence is above suspicion, are carbon, multiple gum, platinum, and gum-platinum, and to my mind the third and fourth are the best. Multiple gum is rendered undesirable by the fact above referred to, that it takes several printings to render any great range of tones. Carbon is, in general, more valuable than platinum because of the greater color possibilities and the greater ease of modifying relative values in the positive; but as between carbon and gum-platinum, I feel that the preference is with the latter, for the following reasons: —

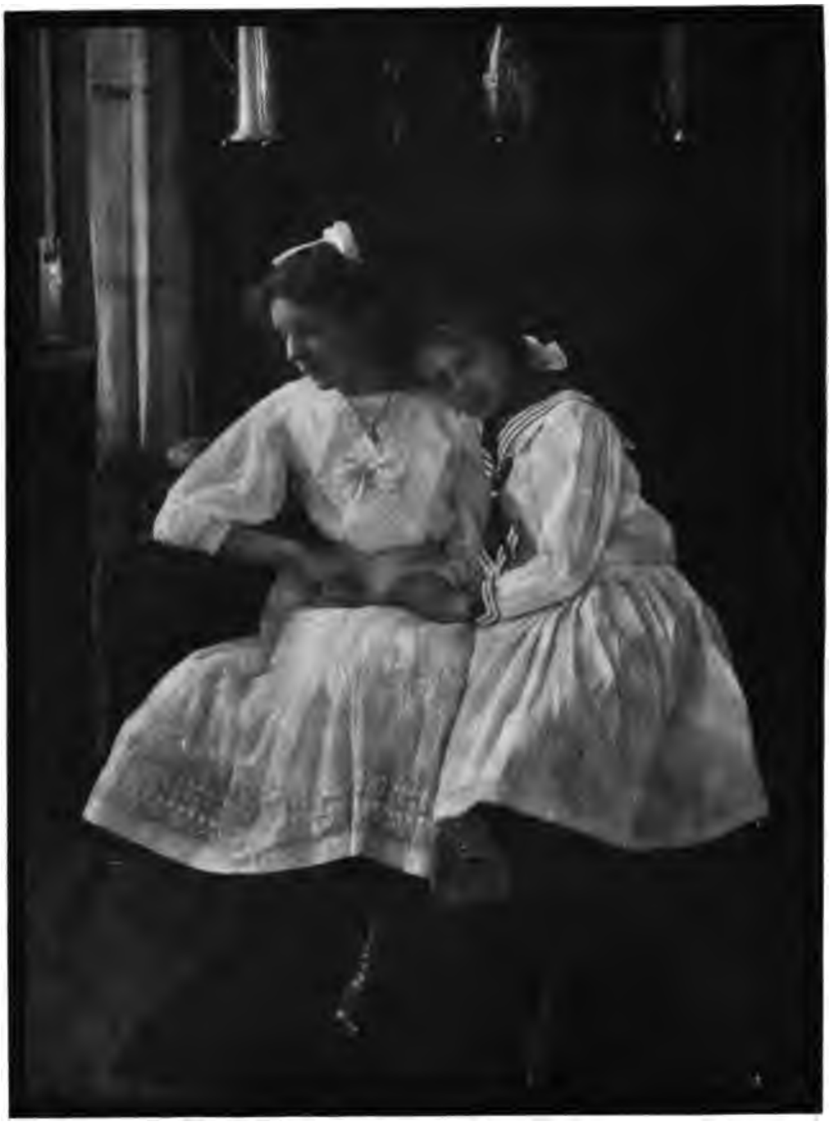
(1) The color possibilities are greater. With carbon we are limited to two colors, — the tint of the transfer paper and the color of the tissue, — unless we wish to resort to double transfer and superimposed prints, as is done in three-color work, or to the ozobrome process, bleaching the original bromide print locally and using different colored tissues. Both these methods are laborious, rather uncertain, and limited in results to the colors furnished by the makers of carbon tissues, while gum-platinum is easy to manipulate, practically sure, and the color range is absolutely unlimited, the worker having at command all the tints possible through combining water-color pigments. I freely admit, though, that in my opinion the matter of color may easily be overdone unless the worker be a trained colorist or a person of exceeding sensitiveness, and I find the chief application of the color possibilities in the use of slightly differing shades of the same basic color.

(2) It is quicker. The worker may take a sheet of platinum paper from its tube and easily have a gum-platinum print dry and ready to mount within an hour, and could even do two or three prints in this time, a result that could hardly be obtained with carbon, even using a spirit sensitizer. Obviously, this permits of the prompt correction of errors.

(3) It is easier to duplicate results. This is not true if absolutely straight prints are to be made, but when any local modifications are to take place, it will be found that the factors influencing the result are not so potent as with carbon. As a corollary to this, I might mention that some time ago I made an exceedingly satisfactory carbon print, using a brush freely in developing, and for nearly a year tried, in spare moments, to get an equally pleasing result from the plate, but failed utterly until I abandoned carbon and tried the negative in gum-platinum, when the second print gave what was wanted, and I have since made three exactly alike.

(4) Personally, I prefer the "platinum quality" to the "carbon quality"; that is, the texture of the finely divided metallic particles forming the platinum deposit is more pleasing than that of the gelatine-bound pigment, and the gum-pigment coating gives a texture more closely approximating the former than the latter. This, of course, is a matter of personal taste.

(5) The effective scale of tones is longer than with carbon. A straight print in gum-platinum has no longer scale than carbon, provided a suitable tissue be selected (plain platinum has a decidedly longer scale than some tissues); but by using two or more printings of gum, varying the



SISTERS
KONRAD RESSLER, AUGSBURG

tint slightly, we can get the effect of carrying light into the shadows, thus increasing the apparent range of tones.

Having gone over the preliminaries, let us now take up the actual working of the process, bearing in mind that there are no hard and fast rules, but that I am merely giving one method which I have proved, and that any one may introduce such changes as seem to him advisable, since, as stated above, this is emphatically a personal, as distinguished from a mechanical, process.

The Platinum Print. — I shall assume that the worker is familiar with the methods of handling platinum paper, and if such is not the case, I would recommend *Photo-Miniature*, No. 96, "Leaves from an Amateur's Note-book," as the best text-book I know on that subject. It should, of course, be borne in mind that although this process offers great opportunity for correcting mistakes, the successful worker will, as with any other medium, see his result clearly before exposing the plate, and will take all steps with the end constantly in view. My own feeling is that it is a great mistake to fit the printing process to the negative (rather than to the subject), as is so often advised. Each printing method has its own advantages and disadvantages; each is best adapted to saying certain things; and I feel that the best worker is the one who is familiar with all processes, selects the one which will most adequately express what he has to say at the time, and makes his negative to suit. I am aware that this is not the idea of most workers, who adhere religiously to one kind of print, but I offer it as my own feeling in the matter.

The only other thing I shall say under this heading is that it is advisable, though not imperative, to make the original print on a piece of paper about 1 inch larger each way than the negative, as a ½-inch margin all around the space to be coated greatly facilitates the uniform application of the gum mixture.

Sizing. – I have used a number of different papers for straight platinum, — American, Willis & Clements, Curtis & Cameron, Angelo, Jacoby, and Ilford, — and have found them to vary slightly in character, some being more useful than others for special purposes, but all satisfactory. My experience with gum-platinum has, however, been confined to the first two, and I have not found it necessary to size either of them unless it is desired to use more than one printing of gum and to brush-develop the first printing rather vigorously. Should it be desired to size the platinum print before applying the gum, pin the dried print firmly to a flat surface, mix a little arrowroot or laundry starch with cold water, and boil, stirring constantly, till a smooth, thin paste is obtained, free from lumps and from watery texture. (If too thick, it will not spread evenly; if too thin, it will not size thoroughly.) Spread this uniformly over the print, using a camel's-hair brush or a soft sponge, and dry thoroughly before coating. This may be repeated before each gum coating, and it may be well to note here that if speed is desirable, any operation that involves wetting the print may be followed by forced drying, say over a gas-jet, taking care not to scorch the paper.

The Gum Solution. – Mix the following: —

Powdered gum arabic	4 ounces
Arrow-root	180 grains
Water	8 ounces
Formalin (preservative)	1 dram

This forms the stock solution, and will keep indefinitely, but must be thoroughly shaken before use, as the arrowroot separates and settles to the bottom. I have found that the easiest way to mix is to work up a little of the gum at a time in a mortar, with small quantities of water, adding the arrowroot (also ground to a cream in water), the formalin and the remainder of the water afterward. The mixture should be strained through a piece of muslin.

The Sensitizer. — Put 1 ounce of bichromate of potash crystals into a bottle and add 10 ounces of hot water. Shake vigorously till dissolved, solution taking place in two or three minutes. This forms a saturated solution, which also will keep indefinitely.

A SUMMER LANDSCAPE ALBERT MAYER, MUNICH

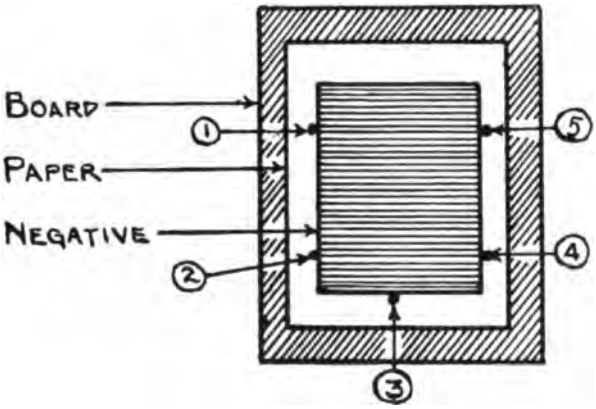
German Amateur Section, Dresden Exposition

Pigments. — I buy the ten-cent water-color tubes, and keep on hand lampblack, burnt umber, burnt sienna, alizarin crimson, Prussian blue, chrome yellow, and gamboge. Lampblack forms the basis of most of my color mixtures, warm black being obtained by adding burnt sienna or alizarin crimson, cold black by adding Prussian blue. Chrome yellow I find most useful when it is desired to give a uniform coating of color to the print in order to tint the high lights, though it is also useful when working for greens.

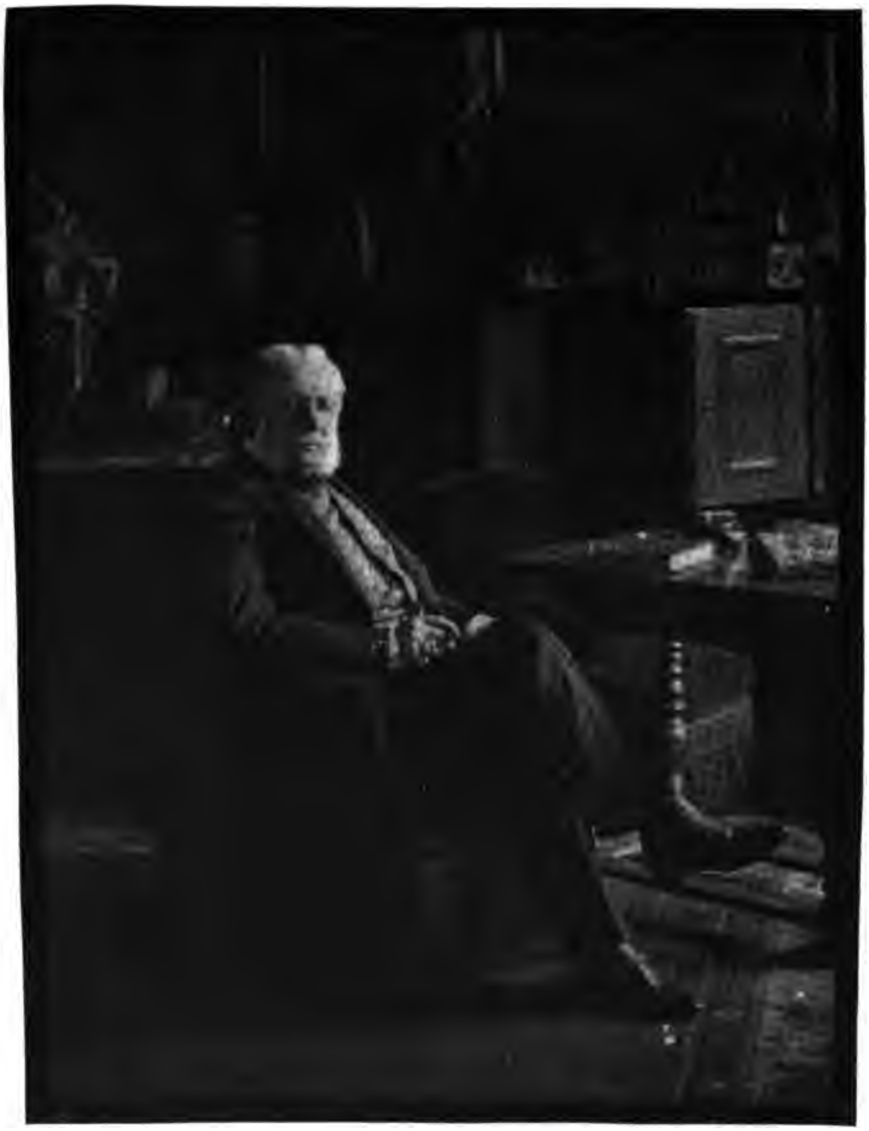
Brushes. — For coating, the only brush really necessary is a flat camel's-hair brush, ***rubber set*** (this is imperative), though a "flat fitch flowing brush" (which may be purchased of almost any dealer in painters' supplies) is useful when it is desired to apply a rather thicker gum coating than usual. A good width for 8 x 10 prints is 3 inches. I have coated an 8 x 10 with a 1-inch brush, but do not recommend that size. Obviously, if one cares to spend the money, a wider brush facilitates coating. For developing, have a sable brush about 3-16th inch diameter. This is used mainly to emphasize high lights, and should have a good point.

Coating. — Having the developed, cleared, washed, dried, and (perhaps) sized print, pin it firm and ***flat*** on a board. Squeeze out ½ inch of lampblack or other pigment and place in a small mortar. Measure out ½ ounce of gum solution and grind the pigment into it well. Add ½ ounce of sensitizer and mix thoroughly, squeezing the mixture through a piece of muslin. Pour a pool of the mixture on the print (a pool the size of a half dollar, or smaller, will do for an 8 x 10 print), and spread rapidly with the brush, going over the print lengthwise and crosswise, drawing the brush the same way for successive strokes—not back and forth—with decreasing pressure, until the coating grows tacky. This is the delicate part of the operation, for if blending is stopped too soon, the mixture runs up in streaks and bubbles, and if it is excessively prolonged, the brush drags the gum and spoils the smoothness of the coating. Only experience can show when to stop, and it is advisable to practice on a few sheets of plain paper before undertaking to coat a print. Fortunately, very little experience shows the proper manner of working, and a spoiled coating can always be washed off without exposing, and the print coated again. A few brush marks will not matter, as they will disappear in developing, provided the print is not badly over-exposed. An ounce of the mixture will coat six or eight 8 x 10 prints, and all operations, up to drying the coating, may be conducted in the light of an ordinary room, as the gum coating is not sensitive until dry. It is advisable to clean brushes and graduates as soon as all prints have been coated, for if the mixture is allowed to dry in the light, it of course becomes insoluble and difficult to remove. Use nothing but cold water on the brush, or the hairs will be loosened.

Registering. — It is obvious that successive printings must coincide as regards outlines, and some means must be provided to insure this coincidence, which may be attained in any one of several ways. *First method:* Use a printing-frame a size larger than the negative, cut a piece of cardboard the size of the frame, and in the card cut an opening the size of the negative. Place a sheet of plain glass in the frame, lay the card on it, lay the negative in the opening, and place the coated print on the negative. Lift the frame and look through negative and print at a gas-flame, work the print around with the finger-tips till register is secured, then lay the frame down on a table and insert the back with one hand, meanwhile holding the print from slipping with the other. It is easier to see to secure register if the print is kept next to the light. With very dense or very thin negatives, it is difficult to accomplish registration by this method, and the *second*, or "printing-board" scheme may be used. This is fairly well known, but will be described for the benefit of any one who may not be familiar therewith. It is also useful at times for single platinum, silver, or bromide printing. Secure a flat board, at least 2 inches larger each way than the negative, and cover one side with felt or other soft material, drawing the covering firmly and tacking the edges down. Lay the printing-paper face up on the board and secure with three stout pins, 1, 2, and 3 in sketch below.



Lay the negative face down on the paper, touching pins 1, 2, and 3, and insert pins 4 and 5, touching the negative. It will be obvious that if the original platinum print is made thus, register may be secured through any number of successive printings, by inserting the pins in the same holes and replacing the negative in the same relative position. As a matter of fact, it will be impossible to register the gum printing exactly with the platinum print, since the paper will shrink in drying after the developing and clearing baths, but I have not found this shrinkage to amount to more than 1-16th inch in an 8 x 10, or an error of 1-32d inch each way in 10 inches, a difference that is allowable in pictorial work — and no one is likely to use gum-platinum for scientific records.



HIS SERENE HIGHNESS PRINCE FUGGER
KONRAD RESSLER, AUGSBURG
German Professional Section, Dresden Exposition

Printing. — I do not imagine that this article will be read by any one who is unfamiliar, in theory at least, with gum-printing; but should there be any such, the theory may be stated briefly as follows: Bichromate of potassium, ammonium, or sodium, being mixed with a colloid such as gum arabic, gelatine, albumen, glue, or other similar substance, is converted by the action of light into a salt, which in turn acts on the colloid, rendering it insoluble in direct proportion to the light action. If, then, the colloid be washed in water, the soluble portion is carried off and the insoluble remains behind, together with any pigment that may be incorporated therewith. Thus it will be seen that the theory of gum printing is identical with that of carbon, the differences being mechanical. It is impossible to give any exact instructions as to time of printing, for it varies greatly with conditions. A dark pigment requires longer printing than a light one, the same being true of a heavy and a light coating. If it is desired to do much brush work on the gum coating, printing must be deeper than when development is to be automatic. Obviously, also, if a deposit is wanted only on the shadows or half-tones, printing should be lighter than when a deposit is required throughout the scale. But it may be said that a coating such as is described above, to be developed with a gently flowing stream of cold water, should be printed about as long as Willis & Clements platinum paper. Printing cannot be judged by inspection (except in rare cases), and for this reason it is well to keep a record of the time required to print the original platinum. An actinometer may, of course, be used, but I always keep a record of the minutes and seconds necessary, and time subsequent printings, taking care to keep to the same atmospheric conditions or to allow for changes. Fortunately there is tremendous latitude in gum printing, — more, in fact, than in any other medium I have ever used.

Development. — Remove the printed paper from the frame, — or board, — place it in a tray of ordinary tap water at normal temperature, and move it around for a few seconds till it flattens out (it will at first curl slightly, coated side inward). Now lift it from the tray and lower it carefully till it floats, face downward, on the water. After five or ten minutes the gum will have begun to soften and development may be proceeded with. This may be automatic, consisting merely of allowing the print to float until the soluble gum has all dissolved and fallen away from the paper; or, in the case of an over-printed coating or when local treatment is resorted to, by one or more of the following methods, which are arranged in order of their vigor: —

(1) Place the print face up on a sheet of glass, clip one end fast with an ordinary wooden spring clip, rest the glass in the sink, the end having the clip slightly raised, and allow a very gentle stream of water from a hose or graduate to flow over the surface.

(2) Other conditions remaining as in (1), hold the hose so that the stream of water breaks, allowing a rapid succession of drops to fall on the print.

(3) Pinch the end of the hose, and direct a fine stream of water against the print.

(4) Apply abrasion with a tuft of cotton or sable brush.

(5) Any of the above methods in combination with hot water.

(6) Add a small quantity of some alkali, such as ammonia or sodium carbonate, to the water, and allow the print to soak for a few minutes in this solution.

There is practically no danger of losing a print, for even if badly over-exposed, it will generally be found amenable to the above treatment, and if under-exposed, the coating may be entirely washed off and the process repeated, or a shadow coating may be left and another coating applied for the high lights and half-tones. If a stream of water is kept flowing over the print while using a brush, the tendency is to blend out the edges of the marks, thus avoiding the appearance of hand work.

Clearing. — The purpose of clearing is simply to remove any of the bichromate that may remain in the paper. Usually it is all carried off in development, but if a yellow stain is left and it is desired to remove it, soak the print in a solution of common alum till stain is discharged, rinse

LADY IN WHITE AURA HERTWIG, CHARLOTTENBURG

German Professional Section, Dresden Exposition

in clean water, and hang up to dry. The strength of the alum bath is not very material; I throw a handful of powdered alum into a tray, add water enough to cover the print nicely, and stir a few times with the hand. This will nearly always clear the print, but in obstinate cases a five per cent solution of sodium bisulphite may be used. This should be used cautiously, and never till after the print has been dried, as it has a marked softening effect on the gum, and may remove the entire coating.

Failures. — Failures will not be many, but a few notes regarding them may be helpful.

Insufficient or Uneven Sizing. — This will manifest itself by specks of pigment adhering to the print and refusing to yield to the brush when developing.

Lumps in the Size. — This fault will be apparent at the time of sizing. The lumps should be wiped off and fresh size mixed.

Excess of Pigment in Coating Mixture. — This will result in the print developing with a gritty texture. The lighter colors, however, may be used in much larger proportion than the darker ones.

Grit or Crystals of Bichromate in Coating Mixture. — This will show when coating, as minute specks surrounded by clear spaces. The mixture should always be strained through muslin before applying, but these spots will sometimes disappear in blending.

Excess of Coating Mixture on Print. — If too much of the gum is poured on the print, it will be difficult to get an even coating; but some of the mixture may be taken up on the brush and scraped out on the edge of a graduate. There is, though, considerable latitude in the amount of pigment mixture that may be applied, a greater quantity merely taking longer to blend. If, however, *too little* mixture is poured out, it is better to wash it off and start fresh than to try to add more after the first has partly set, as this is almost certain to result in an uneven coating.

Excessive or Insufficient Blending will be obvious at the time, and only experience can teach the correct amount.

Incorrect Register will manifest itself as a double outline in portions of the image, but may frequently be corrected on the dry print by a few touches of a pencil.

Under- and Over-printing. — This is discussed above under "Development."

Development Failures. — About the only thing to be guarded against in developing is excessive zeal, the wet gum film being very soft unless very deeply printed.

Miscellaneous Notes. — It is not my intention to say much regarding the mixing of colors, as I feel that this is a point each worker should treat for himself. To those who are not skilled in mixing pigments, I would suggest spending a short time mixing different colors in varying proportions with a palette knife on a piece of glass, remembering that the gum coating will be very thin and will be modified by the color of the platinum print.

A very fine color, especially good for portrait work, may be gotten by taking a full-scale mercury-developed platinum print that has been merely rinsed — not cleared — after developing, and giving it one or two printings of a mixture of equal parts of lampblack and burnt sienna. The practice of not clearing platinums, however, is distinctly not recommended when permanence is desired, as the result is certain to prove fugitive in the course of a few years.

A full-scale print may be gotten from a weak negative by successive printings. I have taken a negative so weak that when examined against the sky scarcely any deposit was visible, and gotten a full-scale print in five printings (one platinum and four gum). If this sounds like a great deal of work, I might add that I made three finished prints from that negative, also three from another, each of the latter having two printings, between 8.30 A.M. and 4 P.M. of the same day.

Gum printings may also be put on plain silver, bromide, or carbon prints, though the last two are not so easily worked as platinum, and plain silver is not permanent.

Rough papers are easier to coat than are the smooth.

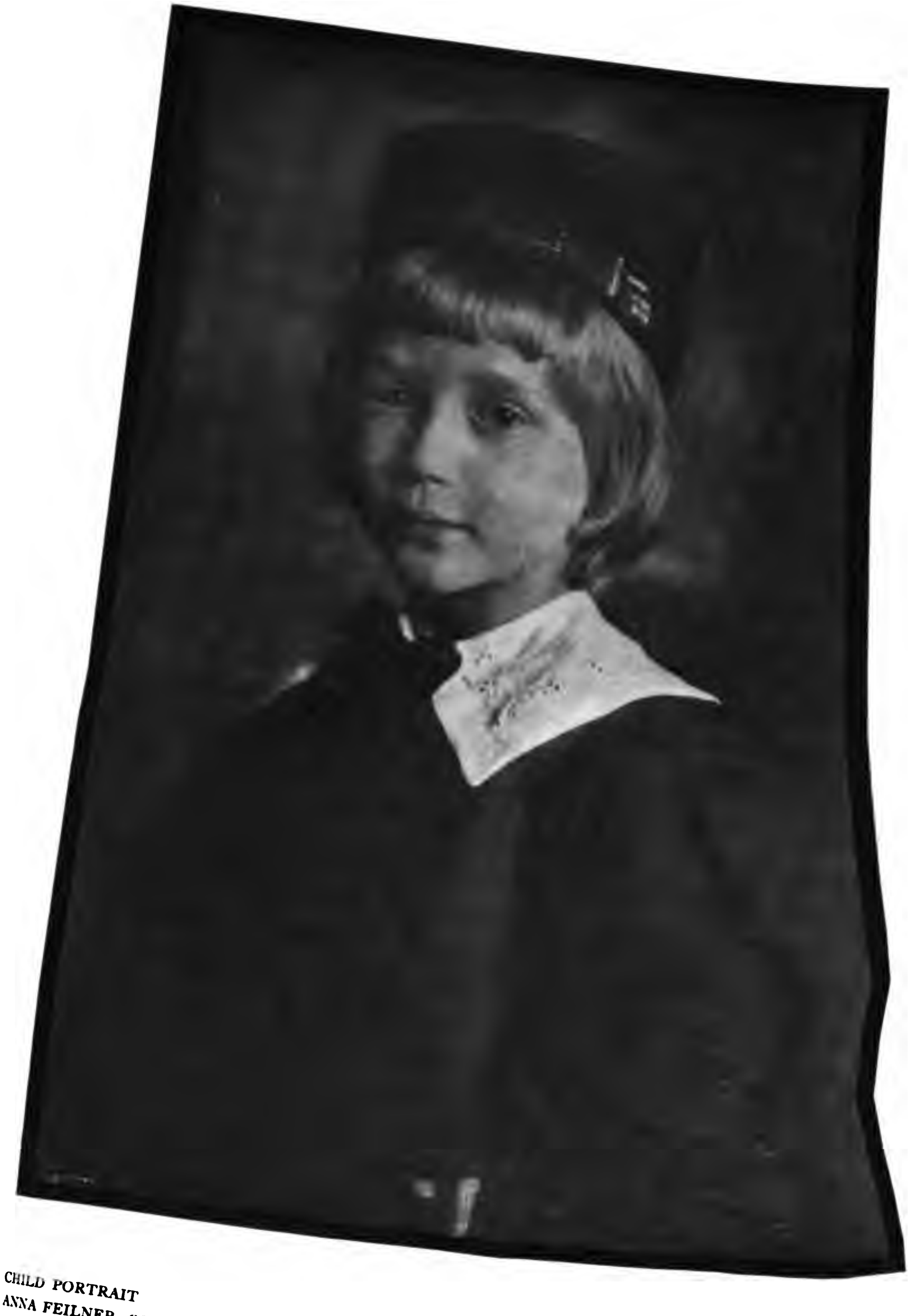
For spotting prints, a "carbon spotting pencil" may be used, but if several gum printings are applied, the print will have a slight gloss, and in this case a "china marking pencil" is preferable, as this leaves a slight shiny mark, which is less apparent than the matt mark of the former.

In conclusion, I would say that I sincerely hope these notes may prove helpful to some one, and I shall be glad to give any further advice to any one who wishes it.

DEVELOPING CLOUD NEGATIVES. — The great temptation to get vigorous and plucky cloud negatives leads to disappointment if yielded to, for heavy clouds always give in a photograph the appearance of a thunderstorm. In developing cloud pictures we must aim at soft, delicate results, and in order to do so a very weak developer is desirable, such as one of ordinary strength diluted with three times its bulk of water. The most suitable is perhaps the following: —

Water	10 ounces
Metol	16 grains
Dissolve and add: —	
Sodium sulphite	80 grains
Sodium carbonate	80 grains

Do not use any bromide unless the plates show a tendency to fog.



CHILD PORTRAIT
ANNA FEILNER, OLDENBURG, I. GR.
German Professional Section, Dresden Exposition

TONE COMPOSITION

THE ADJUSTMENT OF VALUES AND VALUE MASSES IN A SPACE

ELISA ANNE SARGENT

THE accompanying scale of seven values evenly graded between black and white has become, by common consent, the key to value analysis and modern tone composition. Beside presenting a gradation of values, it gives a set of darks and a set of lights balanced over a middle value, which is the *dark-light-and-middle* basis of composition very generally in use to-day,—a form of tone arrangement quite different from the *dark-to-light* or *light-to-dark* and the *dark-against-light* or *light-against-dark* arrangements of preceding times.

It is proposed in this article to take up the distribution of lights and darks over a space; the movement of lights, darks, and middle values through a space; the disposition of principal masses and their repetitions; and the broad statement of proportion as applied to dark, light, and middle values in a composition. In other words, the discussion of drawing with masses instead of lines,

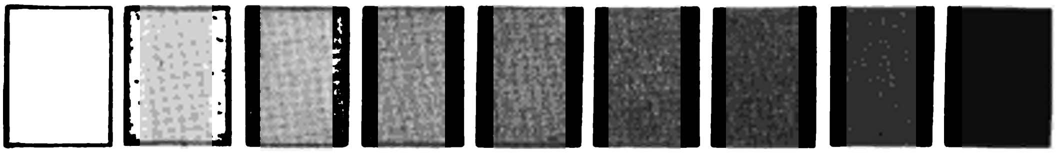


FIG 1

as stated in the three first points given above, is the leading idea presented and proportion of areas of values is added as an important element in producing agreeable and effective results.

Figures 2 to 6 inclusive show something of the amount of variety possible in the arrangement of the same values, areas, and shapes in the same space. They also show how quickly the element of movement enters into the simplest and most rigid composition. The central mass, now light, now dark, is always evident and is also well led up to from each corner of the space. There is an agreeable progress from small to large in both dark and light spots and no two shapes are exactly alike,— two important points to be considered in all pictorial compositions. There is an equal amount of dark and light in this form of composition,— which is the general rule for single-value contrasts. Compositions made on the order of these figures are generally sparkling, lively, and full of positive interest. Figure 14 illustrates this point admirably. So, also, do "The Mists of Minnehaha," E. B. Collins (September, 1909); "An American Beauty," S. H. Lifshey (November, 1909); "The Brook at Rambouillet," Walter Zimmerman (December, 1909); and "When I was a Little Boy," Gertrude Käsebier (January, 1910). An exceptionally good example of a central light with many repetitions moving in graceful lines over the space is "The Last Flower of the Forest," J. S. Henry (February, 1909).

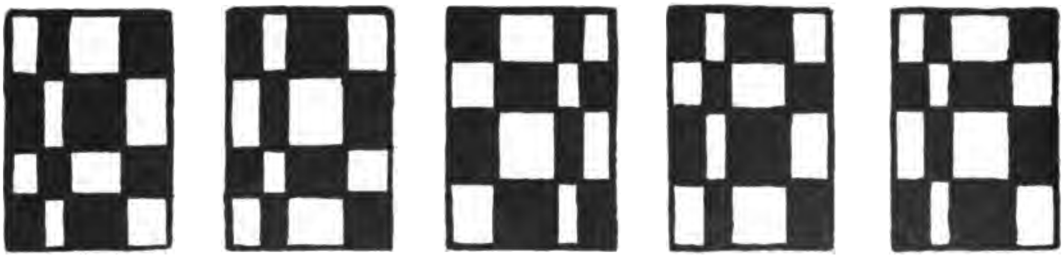
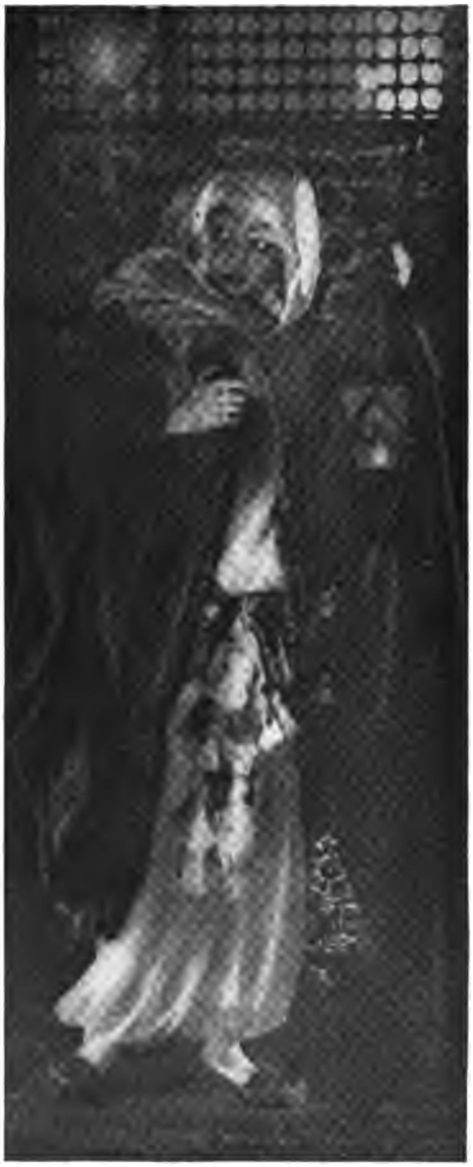


FIG. 2 FIG. 3 FIG. 4 FIG. 5 FIG. 6

Illustrating the distribution of lights over a space, the movement of darks and lights through a space, the location of principal masses and their repetitions and gradations in sizes and shapes.

Fig. 14 Spotting the space with dark and light—illustrating Figs. 2 to 6 inclusive



"BEHOLD THE BRIDEGROOM COMETH'
W. AND G. PARRISH, NEW YORK

Figure 7 shows, in a less abstract way, a space spotting similar to that of Figs. 2–6. It is a very broad translation of a fine portrait study, "Two Brothers," J. H. Berkemann (June, 1909). The translation has purposely been given the form of flowers to illustrate the necessity for losing the specific subject in the consideration of principles of tone arrangement. This arrangement of a simple value contrast is practically that of Figs. 2 and 6, and is an almost universal arrangement of darks and lights in flower spray and portrait work, and quite general in landscape studies. "Portrait," F. Vollenweider, Berne (January, 1910), is a good illustration of this arrangement in portrait composition, and "Coming Home," M. Howard Arbogast and "Spring Landscape," Charles K. Archer (August, 1909), are excellent examples of this kind of tone adjustment in landscape drawing. Different in form, but showing the same principle of arrangement, is "The Daisy Field," M. Howard Arbogast (February, 1909). The beautiful chains of daisies moving over the hill, leading up to the broken luminous masses in the sky, are fair garlands of light held by three bright jewels,— the intense spots in the sky and the one strong reflection in the brook. It is a rarely fine drawing with lights and darks.

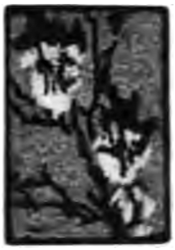


Fig. 7.

Translation of "Two Brothers." Showing inter-relation of subjects in mass composition.

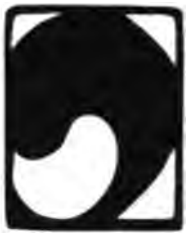


Fig. 8.

An important shape composition.

Figure 8 presents an often reiterated form arrangement, sometimes called the "Greek brush-mark form" and sometimes considered as the result of "occult" line movements through a space. As a basis for mass drawing it has the advantage of adaptability for the purpose of bringing out the subject and making the best of the setting. "In the Fields," H. Wittfeld, Numbrecht (December, 1909), is an interesting example of this arrangement,— the "brush mark" inverted and reversed and the values interchanged. It is a very clever as well as a most agreeable carrying out of this form idea. Less distinctly an example, but altogether charming and quite as true, is the "Portrait of a Lady," Frau von Wätjen, Düsseldorf, in the same number. "Mother and Son," J. C. Strauss, St. Louis (July, 1909), a very rich value drawing, is an excellent example of this arrangement, also. The print, "Lady with Vase," Hugo Erfurth, Dresden (September, 1909), is this form and — not this form. Here the irregular triangle strongly suggests itself,— but the principle of arrangement is quite the same. One of the most beautiful, though not the most obvious, arrangements of this order is the "Feast of the Immaculate Conception," G. E. Man (May, 1909). The exquisite variety of value drawing in the light mass, the re-echoing of the bright lights by the dimmer lights, and the setting out of the whole with the well-related dark areas make a very wonderful *ensemble*.

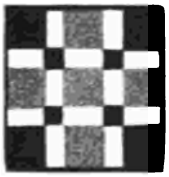


Fig. 9

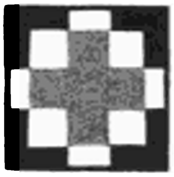


Fig. 10

Drawing with equal interest with each of three values. This is the impressionistic — sometimes called the "decorative" — method.

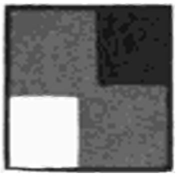


Fig. 11

Equal contrasts of dark and light in equal quantities on a middle value.

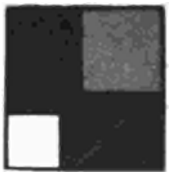


Fig. 12

Twice as much of the middle value as of the light makes a balance on dark.

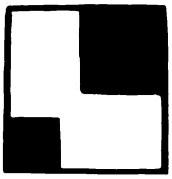
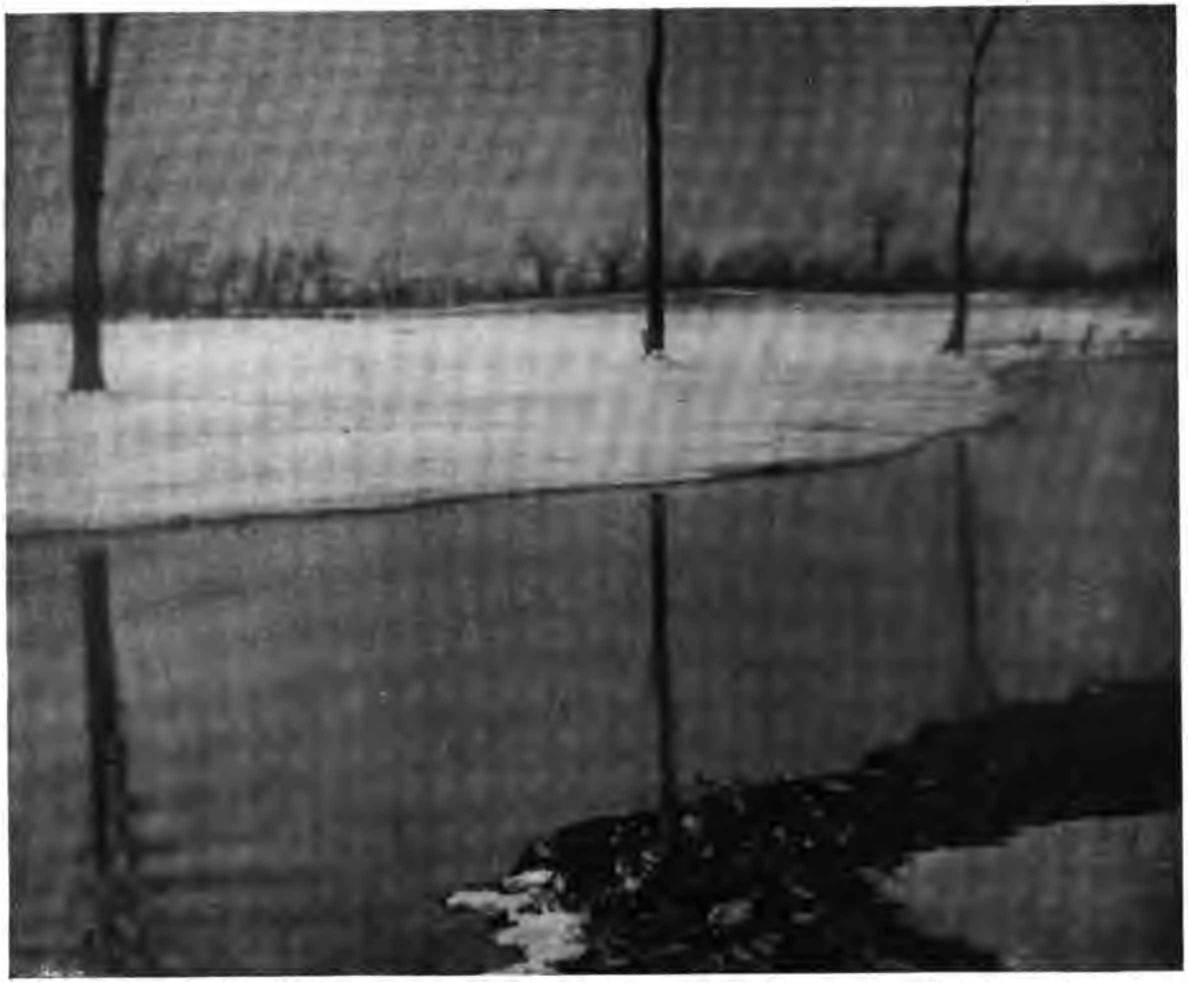


Fig. 13

Twice as much of the middle value as of the dark makes a balance on light.

FIG. 15. Drawing with dark and light masses of equal interest and area, illustrating the proportion stated in Fig. 11, and the distribution of values in Fig. 9.



WINTER LANDSCAPE *Photo-Pictorialists of Buffalo* F. AUSTIN LIDBURY, NIAGARA FALLS

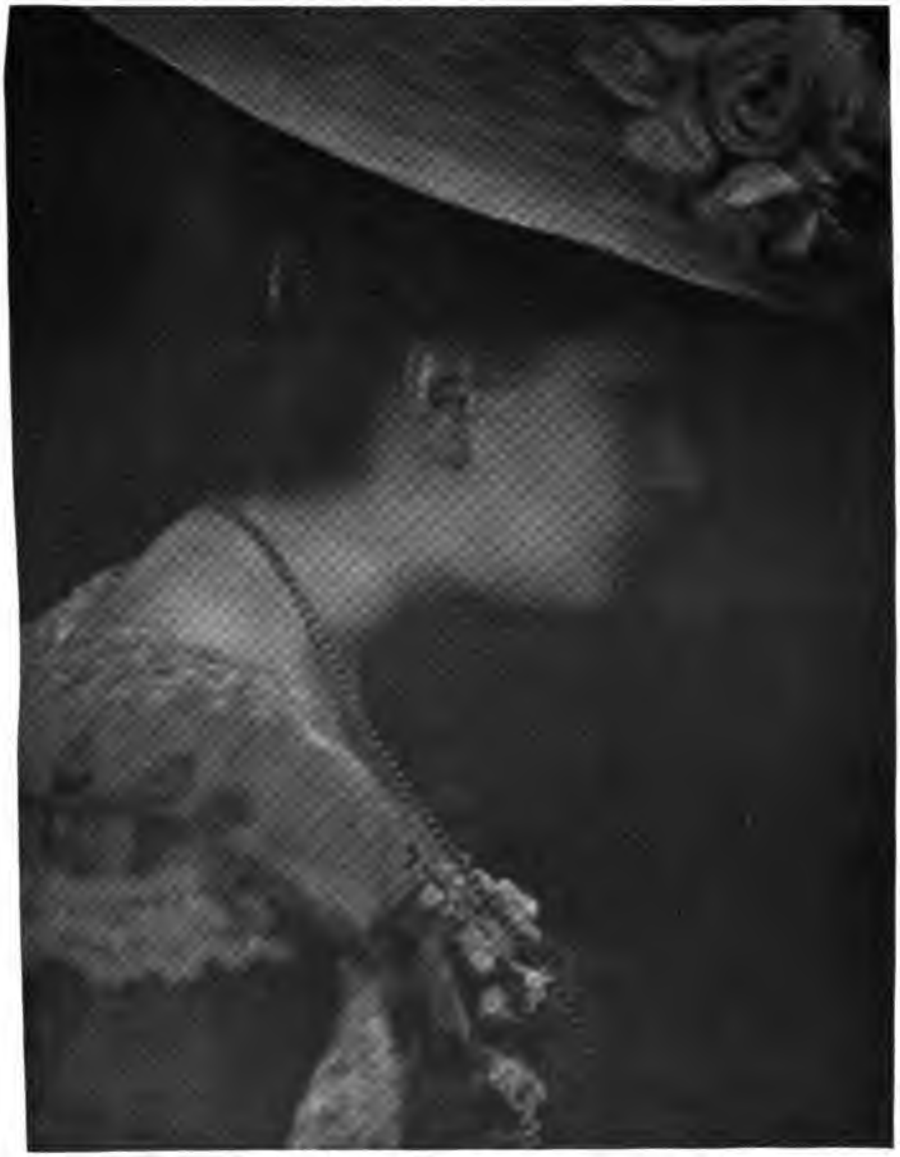
Considering Fig. 8 as an arrangement of occult line movement, "The Crystal Globe," Gertrude Käsebier (January, 1910), is an excellent illustration.

Figures 9 and 10 are symbols for *making the pattern, or drawing, solely with masses*. They also show three values equally employed in the expression of pattern as against two values similarly used or two displayed on a third value as mere groundwork, without special attention to drawing,— which forms of expression in values have occupied the preceding paragraphs of this article. The idea of tone composition thus shown is the true presentation of the work of to-day in drawing in values and is the central point in the *dark-light-and-middle* method referred to previously in this article. Figures 11, 12, and 13 are general statements of the proportions to be observed in dealing with three values in a composition,— dark and light in equal quantities on a value midway between them; light and middle as one to two on the related dark value; and dark and middle in the same proportion on the related light value. These proportions are certainly most convenient in the adjustment of values to display the drawing or convey the meaning of a picture. In each case two values have fixed relations to each other while the third may be varied to any extent required in the development of the subject. For instance, in Figs. 9 and 10 the intention is to keep the third value equal in area with the other two to illustrate a subsequent point in this article, requiring that there be no possible sense of "background" in the drawing but that each value shall make an impressive pattern by itself. Had the area of one value been larger than that of each of the other two, the impression of this idea would not be so readily gained. It is obvious that the arrangement in Figs. 9 and 10 has its initial point in the proportion stated in Fig. 11. From the point made with these figures as a beginning, a long range of variations in the area of the third or adjustable value may be made up to the point shown in Whistler's "Nocturne" in the Metropolitan Museum of Art, New York City, in which a few small lights and darks are displayed on an expansive, though truly expressive, dark-middle scene. This third adjustable value may, of course, be less as well as more than equal to the other two.

One of the most ingenious and at the same time remarkably true presentations of this idea of drawing in dark, light, and middle masses is found in Fig. 15. The space is so admirably divided from left to right by the simple yet charmingly varied dark tree trunks with their reflections as to satisfy the most critical analyst. The horizontal divisions of the space are also well accomplished. Two masses of dark and one of light move with less precision but with quite as harmonious attitudes across the space with the masses of middle value placidly lying between. Here is a complete rhythm from decided movement, as in the tree trunks, to almost complete repose, expressed in the most simple and even ordinary landscape elements,— showing a fine power of selection with an eye trained to observe in the author of the composition. The slight waver of the stream sympathizes with the fret of bank and wavering fringe of distant trees. The small, but varied light mass in the immediate foreground repeats the larger mass of the same order and emphasizes its stability, due not only to size but to position in the space. Horizon fringe, tree trunks and their reflections and foreground mass make a network of dark over the whole surface of the picture, very cleverly drawn and well contrasted in its activity with the almost monotony of the other shapes in the picture. Silence is the all-pervading idea,— but for the few suggestions of line and the purl of stream. It is a marvelous example of repose,— which effect is accomplished by masterly arrangement as well as by the solitude and serenity of the scene.

There are many other landscapes showing excellent drawing in mass. One in the September, 1909, magazine — "Dashing Spray," William S. Davis — reduces the material to a point where interest must come from the drawing rather than from the *genre* type of the scene. The juxtapositions and repetitions of value motives are very enjoyable as well as remarkable. "Evening Shadows," Photo-Pictorialists of Buffalo (October, 1909), is a beautiful value drawing and "The Albright Art Gallery" by the same workers in the same magazine is an extremely clever handling

FIG. 16. Drawing with masses of light, middle, and dark values, one value subordinated as a background. Illustrating the statement of proportion in Fig. 12, and the movement of light masses through the space as in Fig. 4.



MRS. MARION HOPPÉ
E. O. HOPPÉ, LONDON

of light, dark, and middle shapes which, in ordinary photographic treatment, would be mere bald statements of facts. The "Mists of Minnehaha," previously mentioned in this article, is another example of mass drawing, in its way as subtle as Fig. 15.

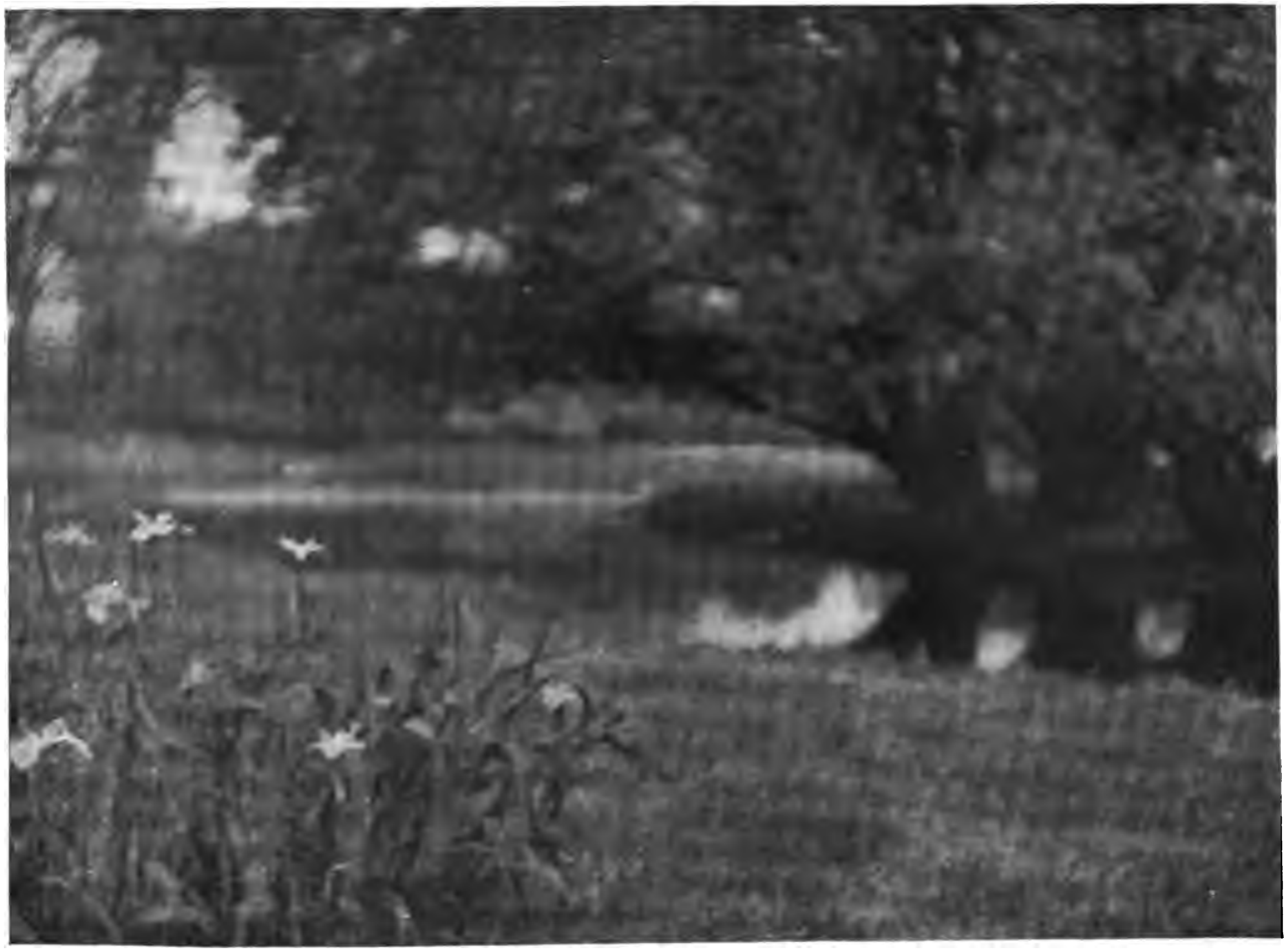
Figure 16 illustrates many of the points given in this paper. The proportion of values, the quality of values, and the general distribution of the elements of interest in active, slanting lines across the space are but the first observations. Each shape, whether of feature, dress, or background, is admirable,—either by pose, by arrangement, or disposition. With what consummate skill is the large mass of middle value disposed against the dark ground! How beautifully etched out are the gleams of light on flower, jewel, and lace! How well are the excellent points of the profile of face and neck preserved while they in no wise depart from the requirements of the picture! To so express the lineaments as to make a portrait and at the same time to produce an artistic whole is to create that of which time has no power to destroy the interest. Such a work has been done here.

Returning to the statements concerning Figs. 9 and 10, we select the point previously stated that each value makes a drawing of equal interest with the other two and add two more points; that the three values are distributed *generally* over the space, and that the pattern is what is commonly called *a design:* that is, a decorative figure. Figure 17, while distinctly a picture, shows many of the same qualities. Following each value it will be seen that a specific pattern may be traced, moving back and forth across the space. It is also noticeable that the effect is not that of centralization — with a specific interest holding the attention — but that of diffusion of interests within certain well-ordered bounds. This kind of drawing with values has the effect of tapestry and is often called "decorative." It is, however, rather after the later impressionistic order than decorative,— rather lacking in extensive atmospheric perspective than following the French and Italian formulas which produced the wall-hangings of the seventeenth and eighteenth centuries. "An Italian Woodland," W. H. Porterfield (February, 1909), has been so manipulated, however, as distinctly to come into the "tapestry" range. It would be no serious offense to pictorial art and would serve a vastly important purpose in the development of distinctly American design if photography could be carried intelligently farther afield in this direction.

Writing upon a subject so vast as composition is like gathering shells on the beach. To-day's shells are ever lovely,— but yesterday's scarcely reveal the reason for gathering them with such enthusiasm. But again — when many days' gatherings are together — new orders of beauty, new affinities, and new possibilities of combination present themselves and the mind moves farther into the field of knowledge. It is, therefore, with something of courage that these words are written, — though the sum of them all is but a small fraction of what might be said.

THE DEVELOPMENT OF ENLARGEMENTS. — There are several points which require attention in the development of bromide enlargements. It is easy either to carry development too far or not to let it go on for a sufficient time. The character of the picture must always be considered both in the exposure and in the development. Thus, in a portrait, we must avoid contrasts, and see that the blacks or shadows are not too intense; this is done by giving plenty of exposure and not carrying development too far. With landscapes, plenty of contrast is generally needed, but care must be taken that the details in the shadows are not lost by "blocking up." When the negative is both harsh and dense, the enlargement is apt to be much too contrasty, and when working with such negatives the developer should be diluted. In order to see when the development is complete, the print should be held up in front of the dark-room lamp and looked through, as it is impossible to judge the density correctly whilst it lies in the dish. But as some density is usually lost in the fixing bath, development should be carried on for at least half a minute after the print seems by transmitted light to be dark enough.

FIG. 17. Drawing with masses dark, light, and middle in value. Each value expresses something equal in importance with that expressed by the other two. This illustrates the principle in Figs. 9 and 10.



WHERE THE IRIS GROWS *Photo-Pictorialists of Buffalo* EDWARD B. SIDES, BUFFALO

SOME BEGINNERS' TROUBLES

J. CLARENCE NORTON

(Concluded from page 150)

ON September 10 I had only a few samples of cards to show at the fair, but I was now sure I knew how to develop and fix plates, so I took to the fair my show horses, my post-card samples, my camera, and twenty-four loads.

My sample cards, at the fair, were displayed under a glass in a nice frame. A powerful reading glass, hung to the frame by a string, enabled visitors at my stall to view the cards under a powerful glass, and the result was that I booked an enormous amount of work. I took snap-shots of many of the show horses, rigs, and samples of the grain, and received many more orders for these.

So much work was ahead of me that I was compelled to take a few days off from farming and work on these orders. This fair and the orders I took for residence views while there made all the work I could do up to November, or about fourteen gross, one gross of which was put in the hands of one of our storekeepers to sell at five cents each, I to receive four cents on all cards sold. I gave our local editor a few samples, and he gave me a good write-up, also some work to do.

My thirteen-year-old boy had shown at the fair a thoroughly broken sixteen-weeks-old mare colt to sulky, and my father of eighty-six years a twenty-eight-year-old mare to sulky, a difference of one hundred years between the two rigs, and the demand for their pictures was large.

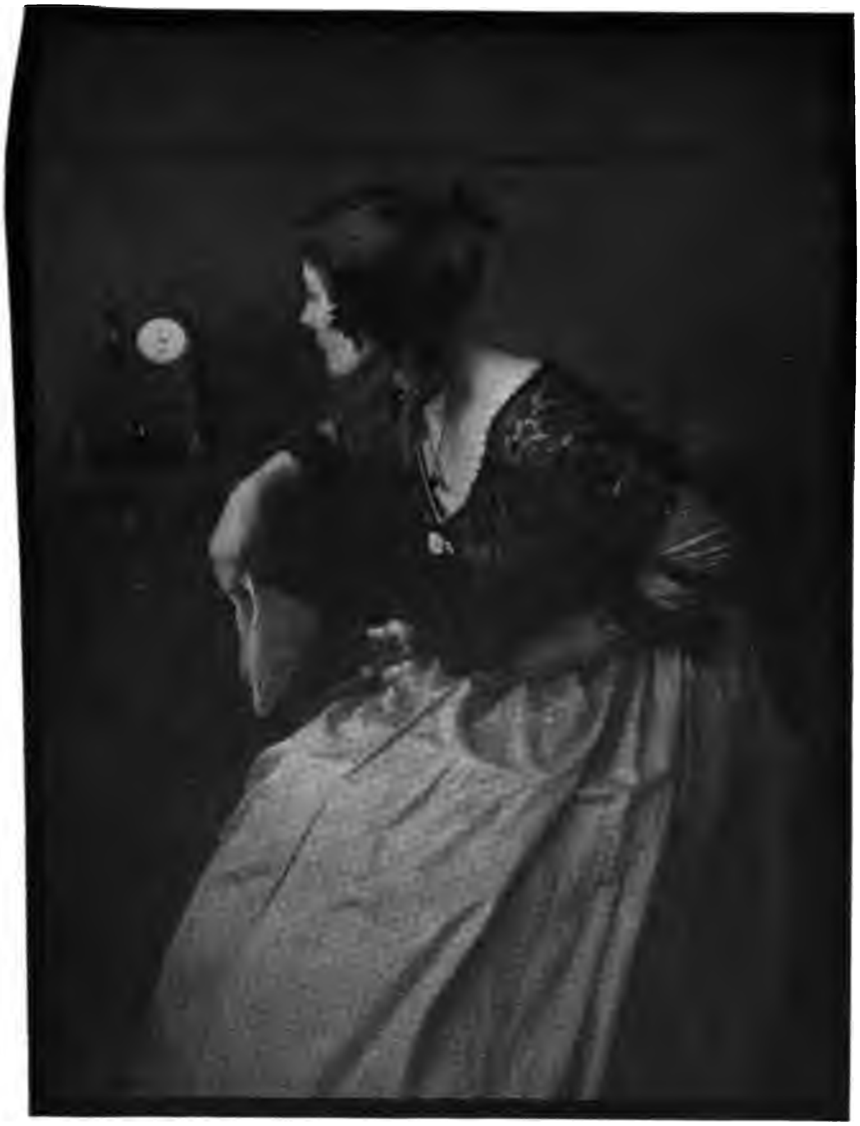
I snapped most of the show horses while on the trot in the parade, also the band and visitors, and these different views sold readily.

By November the sun had gone so far south that I could not take a picture that would print well, and I was a month finding out what the trouble was. All this time my Bee meter had lain in my chest, and many times I had wished I had back the money I had paid for it, but my failures now caused me to study it carefully, and as soon as I followed its directions, I got a good negative. All this time I had used the stop at 32 and the shutter at 1-100 second. I now opened the stop wide and discovered that the lens made a perfect picture on the plate and also discovered that I could take moving objects as slow as 1-10 second, which enabled me to still take views of animals. Before I opened the stop from 32, I had, on three different occasions, made a good view of an object moving forty-eight feet per second, giving 1-100 of second exposure.

While looking over Burke & James' catalogue in October, I noticed the name of a magazine devoted to photography. I at once wrote them for the address, and soon had the magazine, a back number having been sent me by the publishers. In this paper I saw the cut of the auto-time shutter. I cut it out and pasted it on my camera bed, and the cut is of as much value to me as the shutter would be. I also learned from this magazine that there were several periodicals published devoted to the camera. I went to my local editor and got from his directory a list of twenty-three that were at one time published. I mailed cards to all of them, and soon had fifteen or more different samples, which I enjoyed studying over late at night. I finally subscribed for three of them, American Photography being one of them, and would have liked to take them all, but I had to draw the line at three of them. The three I took were the three that sent me their latest numbers.

I learned so rapidly from these magazines that it seems utterly impossible that I ever was so ignorant. I sent for every booklet, advertised for free distribution, in these periodicals, read them all carefully, and gave them with the papers to a boy friend who was just beginning the work.

I failed all through November to make a good negative, but in the meantime had supplied myself with everything needed for indoor photography, including flashlight work. I had about given up all hope of being able to take a photograph in the shade or in the house, when what I learned from these various papers put me wise, and when the December number of this journal



PORTRAIT OF A LADY
ELISABETH HECKER, MUNICH
German Professional Section, Dresden Exposition

came, with Mr. Hammond's most excellent illustrated article, the veil of ignorance was swept from my eyes. Just as soon as I had thoroughly mastered the true meaning of his article, I at once went to work and took my first indoor photograph, which was a most excellent view of my boy. All of my previous work had been views of buildings and animals out in the sunshine.

As I own a beautiful trotting stallion and must exercise him abundantly, going a distance of eight or ten miles to take a view for a man was no trouble at all, as I had to drive anyway. Hardly had my first print of my first indoor photograph got dry, when I got a telephone call to drive ten miles to take views of farmhouses and pets owned by a doctor practicing in Nashville, who was at his home on a visit.

While there I took two views of his house and buildings, one of his dog and cat, two of the cat alone, and nothing would do but I must take one of his aged parents. It was 5° below zero out of doors and about December 28, 1909, when I made this trip. I knew I could make all the outside views, but the portraits were a different thing. However, I remembered every word of Mr. Hammond's article, and with my galloway lap robe for a background, a sheet for a reflector, a west window covered by a porch for light, and my auxiliary portrait attachment, I made a three-second exposure with stop wide open, at 4.30 P.M., with sun at 10 outside, and light at 130 inside by the Bee meter.

The lap robe had a spot of white on it merging into gray towards the black hairs, and this spot of white made a good backing for the shaded ear and shoulder of the sitters, while the black hair made a good background for the lighted side of the subjects, as they both had light clothes on.

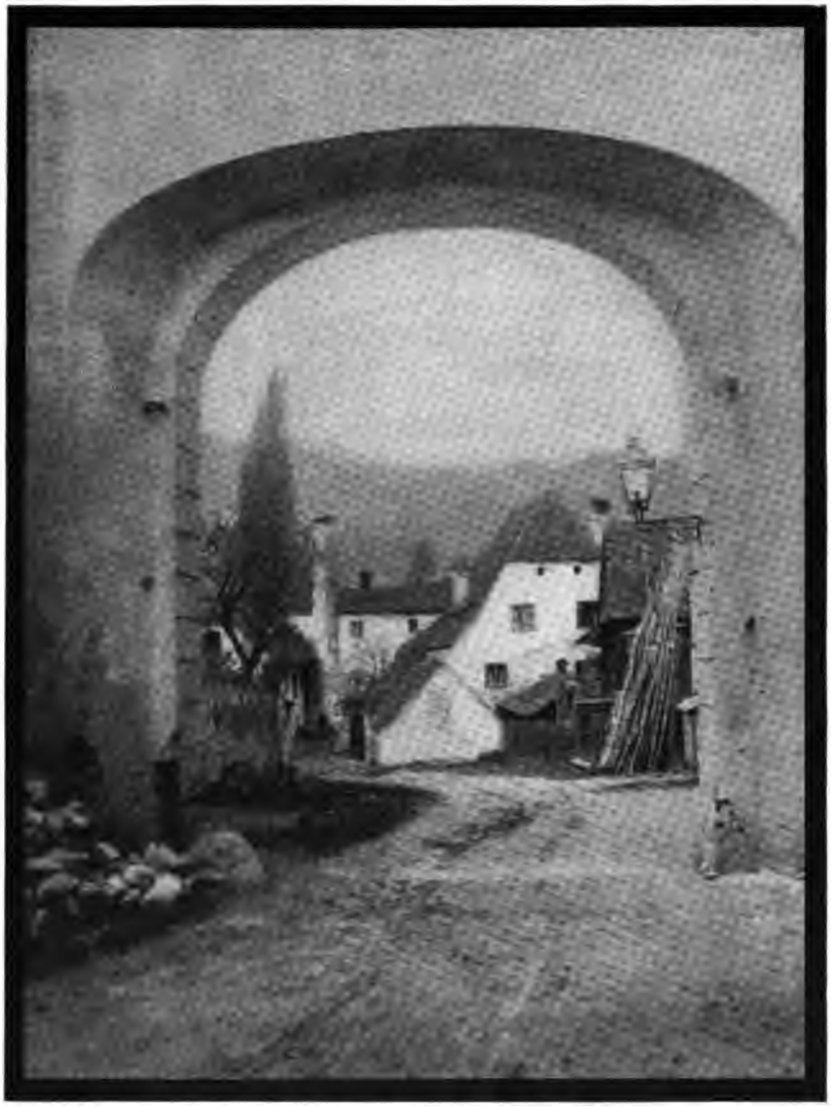
I developed the plates that night, washed the hypo out by floating the plates two hours attached to an inch thick block of wood by shoving them under some nail heads driven into the wood. I put them in the warm sitting room to dry when I went to bed, and the next morning I printed and mounted the views and portraits. That night the doctor came to see the work and was well pleased with it, giving me $3 for twelve 4 x 5 mounts from seven negatives.

Very few artists would take a rig and drive twenty miles at 5° below zero, and work for this price; but I am a farmer and not an artist; the trip was a pleasant visit for me, and the $3 represented a net profit of $2.76, as I used the cheapest of mounts, costing only $1.56 per thousand. I have on hand all kinds of mounts, some costing me as high as $3.75 for twenty-five.

While the doctor was playing the piano that night and a friend was playing the violin, I took my first flash-light picture, using 1 spoonful of powder in a dark-walled room sixteen feet square. I developed the plate at once, and the negative looked so good under the magnifying glass that the doctor decided to stay over night and see the proof in the morning. This he did, and he and the violinist paid me $4 for two dozen mounts.

Since I took my first flash-light I have been kept very busy taking exterior and interior views of the different business houses in our little town of six hundred inhabitants. I mount two 4 x 5 views on one card 6½ x 8½, and receive $3 per dozen for them, a net profit to me of about $2.40 for my work. The barber shops, bank, stores, depots, schools, blacksmith shops, and the various lodges have had views taken, and I am now busy, at this writing, delivering the work which pleases them well.

I have now supplied myself with about everything an amateur could possibly desire to own in the camera line. The little 4 x 5 has paid for it all, and I have learned some things of great value to me and my boy. Two negatives of the successful first twelve, one of my thirteen-year-old boy driving a sixteen-weeks' colt (the youngest horse and youngest driver on the American turf), the other of my eighty-six-year-old father driving "Old Maud," twenty-eight years old (the oldest driver and oldest horse on the American turf), have been sent by me to many professional artists, all members of the I. P. A., and their invariable reply was, "Good; come again"; so I feel that my view work is good. Of course I expect to improve; and because one's friends are well



IN AN OLD TOWN
FRANZ HOLLUBER, VIENNA
Wiener Photo-Klub Exhibit, Dresden Exposition

pleased with the work done, is no sign there is not plenty of room for improvement; yet I feel that I have done well for the short time I have been at it.

I am under great obligations to AMERICAN PHOTOGRAPHY and other magazines, also to the many catalogues and pamphlets I have read, and I have partly repaid the publishers by giving them away to others who would profit by using them. I have learned to develop thirty-six plates in the same quart of developer before throwing it away; and although hypo costs me only four cents per pound box, I use one quart of fixing bath three times before throwing it away. I made me a pair of pincers which grips the tank plate-holder and enables me to churn the plates up and down in a stone churn without any injury to the plates and no splashing or wetting of hands, — which is an item when the temperature is only 34° and the water nearly as cold.

To wash the hypo from the plates I cut a pine board into blocks six inches square, and drove five nails into each block, so I could slip a negative under the nail heads with the glass side next the board, and I let these blocks float the negatives in a trough for an hour or two.

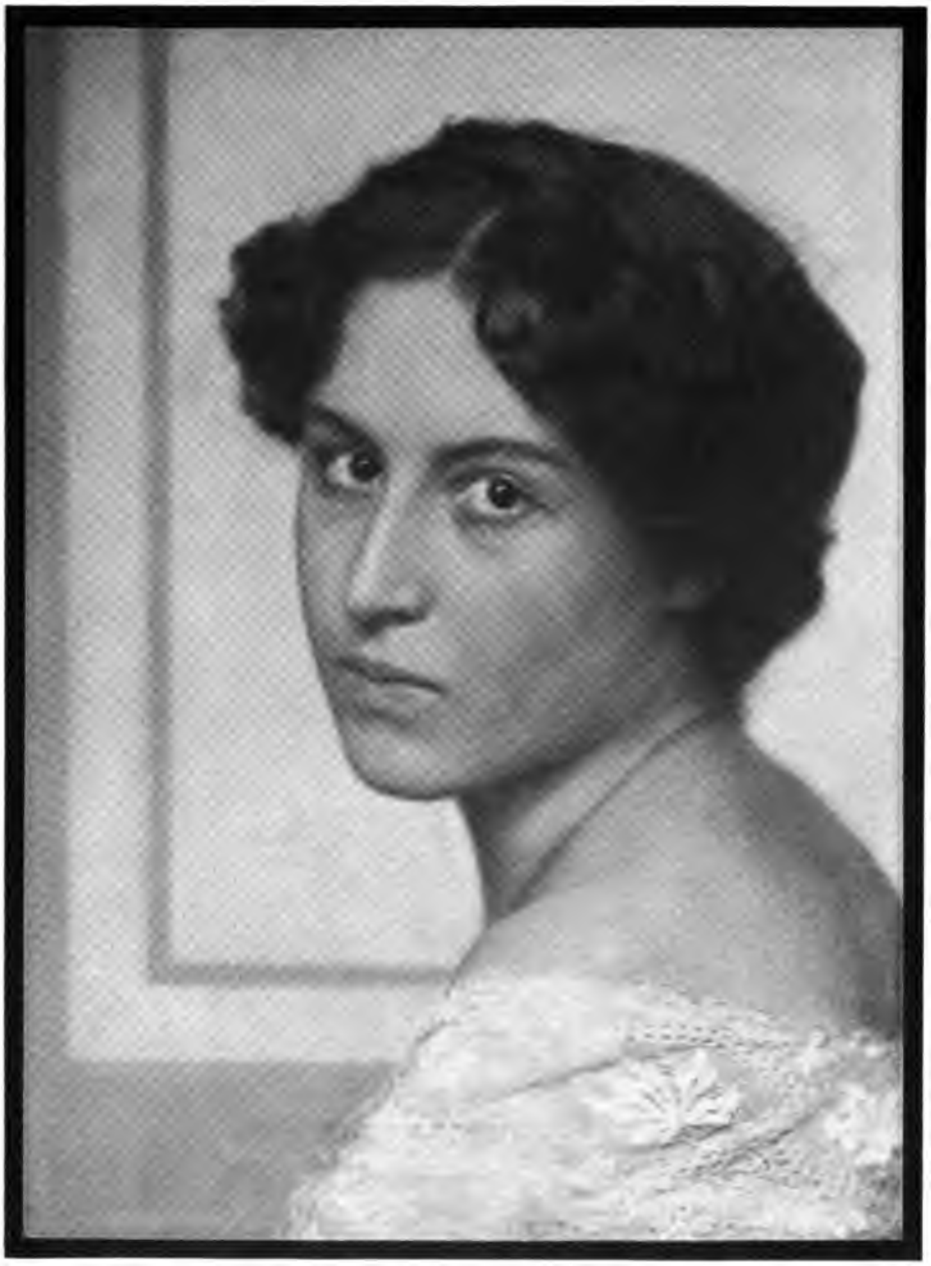
In testing the "Ideal" flash pistol on matches alone, I found it would miss fire often; but I found a remedy for this by warming the pistol and the matches. When the matches are hot, they will fire the charge instantaneously on the pressing of the trigger, providing some powder is placed in the muzzle of the pistol with a knife blade. I use the ten-inch pan on the pistol and the flash seems to travel all around the sitter's head, so that the head will cast only the slightest perceptible shadow on the white waist of a lady directly behind. This leads me to think that a twenty-inch pan, and double the powder used in a ten-inch pan, would be better still.

In closing this rambling series of articles, I want to say something about the social life on the farm. Southeastern Kansas, where I live, was marked on the map fifty years ago as a part of the "Great Staked Plain," or "American Desert." Every quarter section is now highly improved, and every house has daily rural free delivery of mail and local and long-distance telephone. In my own home we have a piano, violin, banjo, guitar, mandolin, and cornet; and my wife and two children play them, while I content myself with playing the Edison phonograph with its two hundred and fifty records. My home is only a sample of others here. I live a quarter of a mile from the district schoolhouse, which is a double building, having two teachers. As these young ladies board here and we have many visitors, there is hardly an evening when we do not have company, and the flash pistol and camera now enable me to make a lasting record of a pleasant evening.

I long ago came to the conclusion that there was no fun with a camera unless you could use it all you wanted. I have three large albums filled with cards of my own make and those which I have obtained by exchange in the I. P. A., and the four-inch magnifying glass brings the pictures out on the cards to almost life size.

In conclusion, I want to say that the editors of this paper have my everlasting thanks for the good the paper has done me, and may its days be long on this mundane sphere. Let's each add a new subscriber during 1910.

MOONLIGHT EFFECTS. — Lantern slides or bromide prints can be made into very picturesque moonlight pictures by toning them blue. To do this it is necessary to make them rather light in the first instance by not carrying development too far, as in toning them they gain in density. After a thorough washing, when they are fully fixed, they are first put into a solution made up as follows: Potassium ferricyanide, 60 grains; water, 5 ounces. Here they quickly turn white, and the image becomes almost invisible, and when this has taken place they are thoroughly washed again in running water for ten minutes and then put into the final bath of iron perchloride, 40 grains; water, 4 ounces. They quickly turn a beautiful blue color in this solution, but often the whites become a muddy yellow color. If this happens, they should be transferred to a bath of water acidulated with a few drops of sulphuric acid, in which the clear parts will soon become perfectly pure white.



PORTRAIT OF MISS S.
ALBERT GOTTHEIL, DANTZIG
German Professional Section, Dresden Exposition

PRACTICAL RETOUCHING FOR AMATEURS

ARTHUR HAMMOND

PART II

HAVING sharpened the pencil and applied the medium to the negative, place the negative on the desk in a good light so that enough light is reflected upwards through the negative to enable all the details and half-tones to be seen clearly. A dense negative requires a stronger light than a thin one. If the negative be very thin, the light must not be too strong, or the delicate gradations of the modeling will be lost. The strength of the light can be varied by moving the desk nearer to or farther from the window.

Now examine the negative very carefully and compare it with the print. It is quite easy to see on the print here reproduced (Fig. 2) which are freckles and blemishes of the skin and which are shadows that are essential to show the modeling. Now pick out on the print any mark that ought to be removed, then turn to the negative and locate it there, — remembering, of course, that everything is reversed.

Now, this freckle or mark that shows dark in the print will be transparent or nearly so in the negative, and your object is to apply enough lead to this transparent spot to make it equal in tone to the surrounding parts, — either quite equal to it, so that it will not show at all, or nearly so, so that it will show a little, as you think best.

With regard to the actual "touch" or method of applying the lead, this is a point that is difficult to explain in writing. It is so much dependent on the individual; different people use the pencil in different ways, and a method that might be right for one might not suit another.

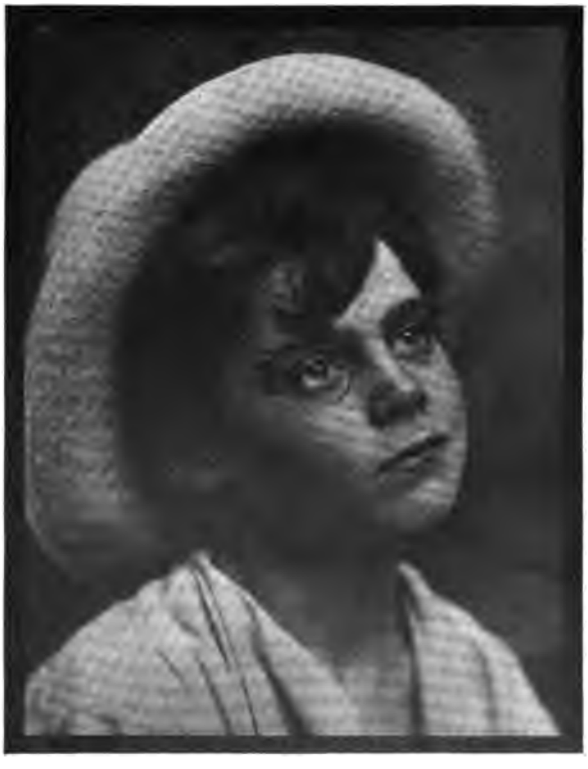


FIG. 2. PRINT FROM UNTOUCHED NEGATIVE

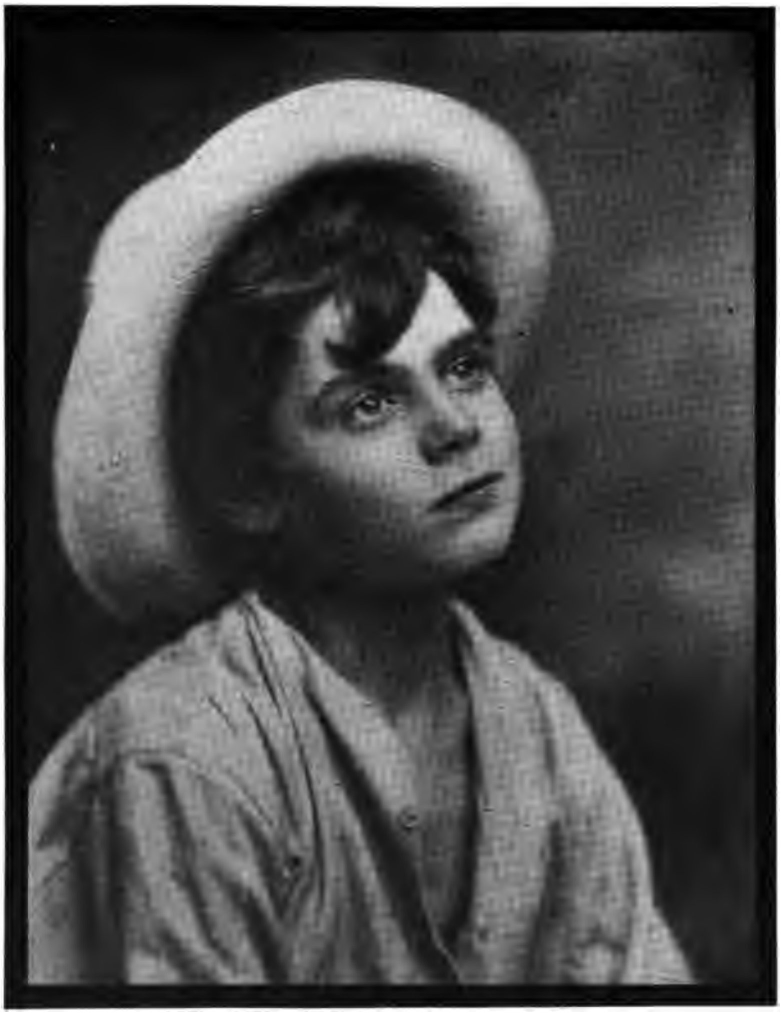


FIG. 4. RETOUCHED PORTRAIT ARTHUR HAMMOND, BOSTON

The illustration (Fig. 3) will show a few of the most usual methods of working. Some people find they get on best by cross-hatching with lines; others prefer to stipple with dots or comma-like marks; others, again, use a combination of both these methods or avoid both and simply apply the lead where it is needed, without any particular method.

It must always be understood that whatever method is adopted, the pencil work must not show on the negative as definite marks. Only the effect of the pencil must be seen; the lead must be applied very gently and very lightly so that the part that is being worked on appears to grow gradually denser. If any marks of the pencil show as marks, it is a sign that the work is being done too heavily and a lighter touch must be used.

The best way to deal with freckles is to place the point of the pencil very gently right in the middle of the transparent spot. If it is a small spot, that one touch is often enough to fill it up; if not, place other touches around the first one, till the spot seems to disappear and merges into the surrounding tone. If it is a very large freckle, work over it gently with lines; if it is still visible, turn the negative around and make more lines, crossing the first. If still more work is necessary, put in a few dots.

Always bear in mind, of course, that when I refer to lines and dots, they must not be made so that the actual lines or dots can be seen. This is the only way to describe the method of working, and the trouble is that the description gives the impression that the whole business is difficult and complicated, whereas a little careful practice will show that such is not the case. The chief thing to remember is that very careful, delicate work is necessary. Do not try and work too quickly, and do not try and get too much lead on the negative at one stroke. The lead must be applied so gently that no marks on the pencil can be seen. Just keep on working gently over one spot till it is leveled up to the surrounding tone and thus disappears.

It is most important, of course, not to go over the edges of the parts that are being filled in. Any work over the edges will make black marks on the negative, which will show as white marks on the print.

The usual advice to beginners in retouching is to begin at the top left-hand corner of the face and work steadily down till the whole face is finished; but, personally, I have always found it better to keep dodging about all over the face, going from one part to another and going back again, if necessary, and doing a little more work if it seems to be needed. This will tend to broaden the work and make it more even.

Having removed all the more prominent freckles and the obvious defects of the skin, the next thing to look for is the modeling and the too prominent shadows. The shadows that will need most attention are the shadows under the eyes and the one from the nose to the corners of the mouth; in many negatives, also, there will be seen a perpendicular shadow over the nose, between the eyebrows. All these, on account of the lighting, are apt to be exaggerated, and will need a little pencil work to soften them. With regard to the shadows under the eyes, care must be taken here not to overdo the work; they must not be taken out altogether, or the eyes will become too prominent and will have a "bunged-up" look. A careful examination of the unretouched print (Fig. 2) will show that there are two distinct lines of shadow under each eye, one directly under the lower eyelid and the other a little lower. The shadow directly under the eyelid must be left alone or softened only a very little, but the lower shadow can be removed altogether without spoiling the likeness. This lower shadow is often seen in people who are tired or sick, and it often happens that it may show only a very little or not at all in the subject and yet be very pronounced on the negative. If this "tired looking" shadow be removed, therefore, the expression will be brightened and improved.

Then, with regard to the perpendicular shadow between the eyebrows, this gives a frowning look to the face, and this is another shadow that may in many cases be removed without affecting the likeness.

In all retouching the worker must use judgment; he must study his sitter, and note carefully any peculiarities or any striking and obvious characteristics of expression. If the sitter has, for instance, a strongly marked shadow between the eyebrows, it must be left in the negative; it may be softened down slightly, if necessary, but it would be quite wrong to remove it altogether. It might make your picture prettier, but it would ruin it as a portrait and would take away all truth and likeness. This is just where professional retouching so often fails. In many large establishments the negatives are simply handed over in bulk to a retoucher who has never seen the sitters, and the consequence is he treats all in the same way, cleaning them up and stippling out all the character and nearly all the likeness. It is much better always to do too little rather than too much; it is better to leave the negative a little rough and unfinished and retain character and likeness than to remove both by doing too much.

Now, with regard to the illustrations, in Fig. 2 it will be noticed the boy has a good many freckles. In this case they are the extraordinary kind of freckles that do not show at all in the

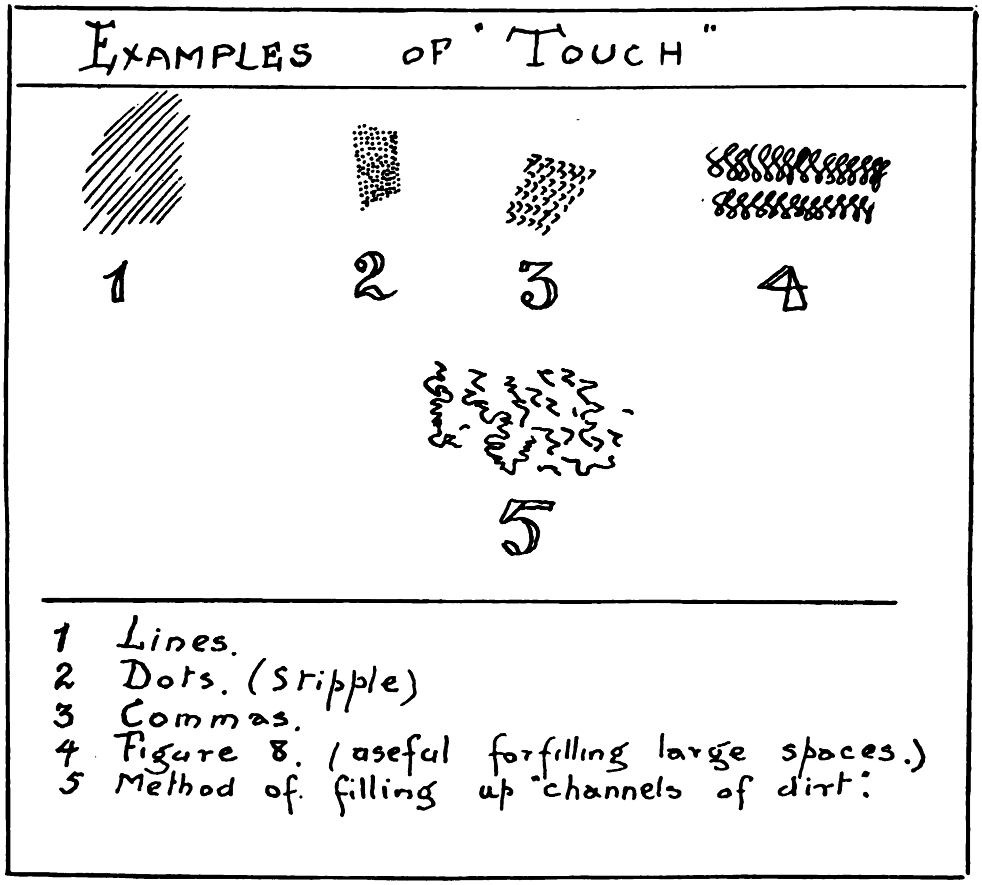
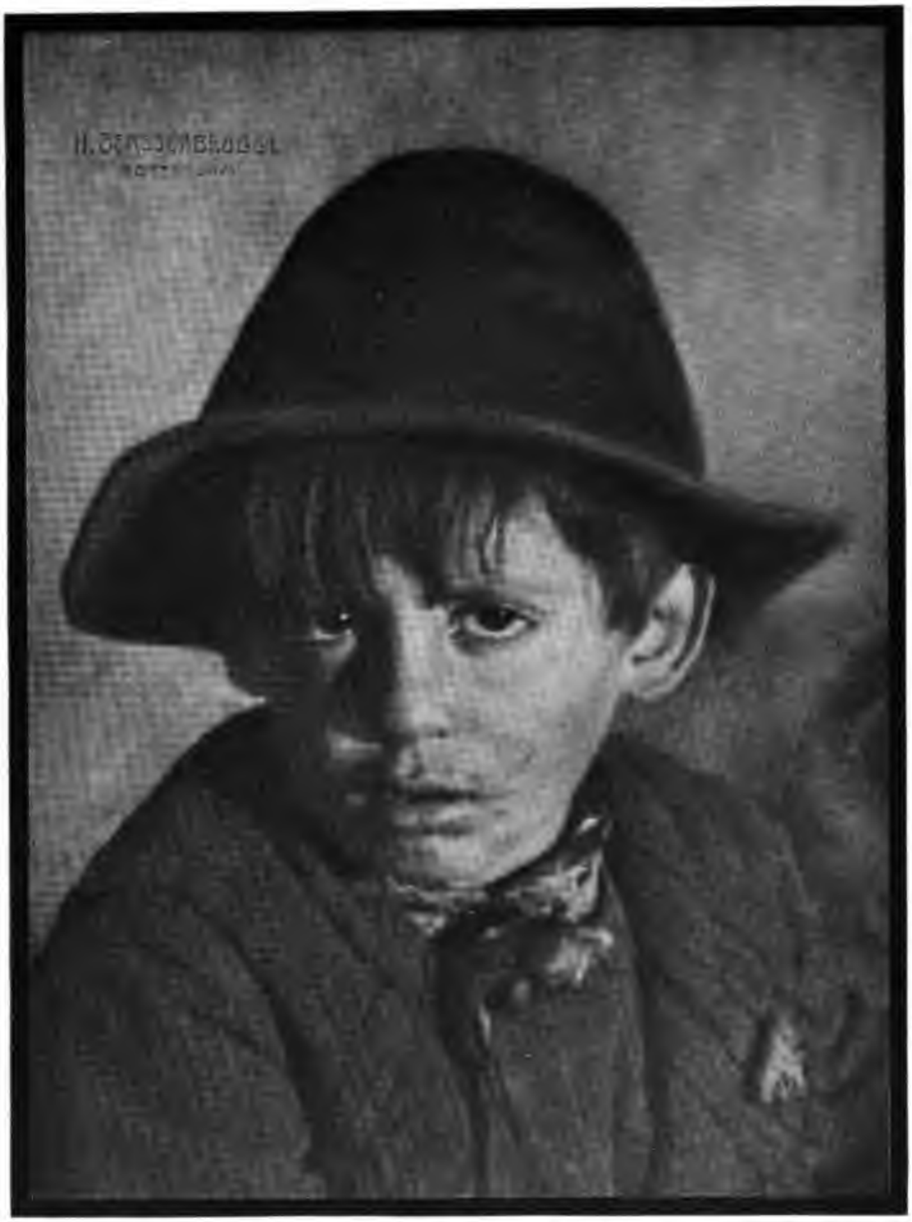

EXAMPLES OF "TOUCH"
1
2
3
4
5
1 Lines.
2 Dots. (Stipple)
3 Commas.
4 Figure 8. (useful for filling large spaces.)
5 Method of filling up "channels of dirt."

FIG. 3

ordinary way; they are under the skin, and are not seen unless the face be examined very closely. In such a case, therefore, it is right and proper to remove them altogether from the photograph. In a case where freckles are a characteristic feature, they should be left just a little, but they will want softening down, of course.

There are many other points concerning retouching which it is impossible to deal with in a short article like the present one. I hope later on to have an opportunity of going further into the subject and discussing such matters as the effect of various expressions on the facial muscles; how a too serious expression can be modified and improved; how a smile which is too pronounced can be softened down; the modifications in the modeling of the face under different expressions; what must be left and what can be eliminated, and so on; but the elementary principles of the art, as described so far, will, I hope, be sufficient to show that retouching is not such a difficult operation as it is commonly supposed to be. If those who have hitherto done without its aid or have had it done for them, will just give it a trial, they will find that even a little knowledge will be of great assistance; and the practice of retouching in its simplest form will add a new interest to the fascinating art of portraiture.



BOEFJE
H. BERSSENBRUGGE, ROTTERDAM
First Prize, Monthly Competition

PORTRAIT OF F. R. H.
C. F. CLARKE, SPRINGFIELD
Second Prize, Monthly Competition

EDITORIAL COMMENT.

OUR MONTHLY COMPETITION

THE competition this month, which was for general pictures,— that is, pictures of any nature, without regard to subject, — was one of the largest within recent months. The number of entries was much in excess of the usual average, and the standard of the work was gratifyingly high. One extra third prize was awarded, and we should have been pleased had we been able to honor in the same manner a number of other competitors. The quality of the work may be judged by the fact that no less than twenty-seven prints, beside the prize winners, were awarded Honorable Mention, a distinction the standard of which becomes higher month by month. The first and second prizes are both awarded to portraits, the first prize going to "Boefje," by H. Berssenbrugge, of Rotterdam, and the second to "Portrait of F. R. H.," by C. F. Clarke.

In manner these two prints contrast strongly with each other. The first prize is a most realistic character rendition of a dirty-faced youngster, — an example of excellent lens work, of fine posing, and excellent spacing. We feel sure that no one will take exception to this portrait from any standpoint. The second prize picture is no less accurate in its rendition of character, but in technique is quite different. The negative was made with a lens not corrected for color, the back portion of an old Voigtländer portrait system, which gives softness without fuzziness through the fact that it possesses different foci for light of different colors. The lens is similar in its action to the Smith and Dallmeyer-Bergheim lenses, which enjoy much vogue among advanced pictorialists, but does not seem to be quite as much addicted to halation as these lenses. The original print is in gray carbon, which has not lent itself as well as might be to the reproduction. The two third prizes are awarded to two prints as different in every respect as the imagination could conceive. The landscape by W. H. Porterfield is a most markedly impressionistic piece of photography, and the original, a very large print, is an extremely beautiful bit of suggestion, portraying a mood of nature most difficult to portray, and which probably will not appeal to every observer. "Teasing" by Frank C. Price is a beautiful animal study, which shows infinite patience and masterly judgment in the selection of the proper instant for exposure.

It may have come to the attention of our readers, that for several months past at least one of the awards each month has been made to a foreign contributor. Naturally the number of foreign prints sent in each month is not large, usually not more than half a dozen of our friends across the water sending us prints. They seem, however, to exercise somewhat better judgment in the choice of material to be submitted than some of the American competitors, as hardly a print comes from abroad which does not receive an Honorable Mention, and consideration in the final judging. This may be attributed to a realization of the fact that the competition is likely to be severe and that it is not worth while to send in any but good prints. Apparently many of our American readers send

TEASING FRANK C. PRICE, COLUMBUS

Third Prize, Monthly Competition

in whatever may have been taken latest, or send in a large batch with the hope that the lightning might strike one of them. We should much prefer to have many of the prints which arrive for competition sent to the "Portfolio" for criticism. It is often pathetic to read the letters accompanying entries which have absolutely no chance, and to realize how fondly the makers of these snapshots regard their productions.

The list of Honorable Mentions is as follows: "Portrait," A. D. Brittingham; "A Morning Call," F. E. Bronson; "Morning Solitude," J. W. A. Cairns; "Mildred," C. F. Clarke; "The Dread and Fear of Kings," H. B. Conyers; "The Book," O. C. Collins; "Oh, You Kid!" Robert Ervien; "A Wraith of Summer," Arthur E. Gleed; "Portrait," A. E. Goetting; "A Game with Grandpa," J. P. Hambly; "A Winter Sunset," A. B. Hargett; "Kodaking," Will G. Helwig; "Sunset on the Hudson," T. W. Kilmer; "The Old Fence," George H. Heydenreich; "Four Gooseberries," John Maddison; "At the Close of the Summer Day," Lizzie M. Peabody; "The Stone Boat," Frank C. Price; "Dragon Fly," J. Herbert Saunders; "As Evening Approaches," Roy J. Sawyer; "Ponte Vecchio, Florence," H. Y. Sümmons; "Turning a Heel," Lawrence Toriells; "Writing to Santa," G. Harrison Truman; "Portrait Study," U. L. Upson, Jr.; "Woodland," J. R. Weaver; "A Summer Idyll," Edward H. Weston; "Tracks in the Snow," Harry D. Williar.

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It is with feelings of gratification that we survey the results of our offer to our subscribers, through which they are enabled to obtain, at a discount of thirty per cent from the publishers price, this most invaluable set of photographic reference books. We are not referring to the number of orders coming in, which though pleasing to us, is, of course, of little interest to our readers. We refer to the expressions of pleasure of the value of the books which pour upon us unsolicited from the happy purchasers thereof. One philanthropic gentleman in St. Louis who purchased a set of books for his brother-in-law, writes with enthusiasm; "You could not buy the books for $50 from him to-day." He goes on to say that his brother-in-law, with the knowledge acquired from these books, had so much bettered his work, that he has obtained a very important contract for photographic work, taking it from a well-known St. Louis firm. His wife also has learned to handle the camera, knows the set of books almost by heart, and has become an authority on photography, and as good a workman as her husband, through the use of this set of books. This is but one example of many which we could site. The moral is obvious. Every reader of this magazine should purchase, before our offer is withdrawn, a set of this library. No matter how expert you may be, you will find in every volume facts until now unknown to you, which will be worth dollars, which will improve your work, and which will cause you to thank the day on which you made the purchase.

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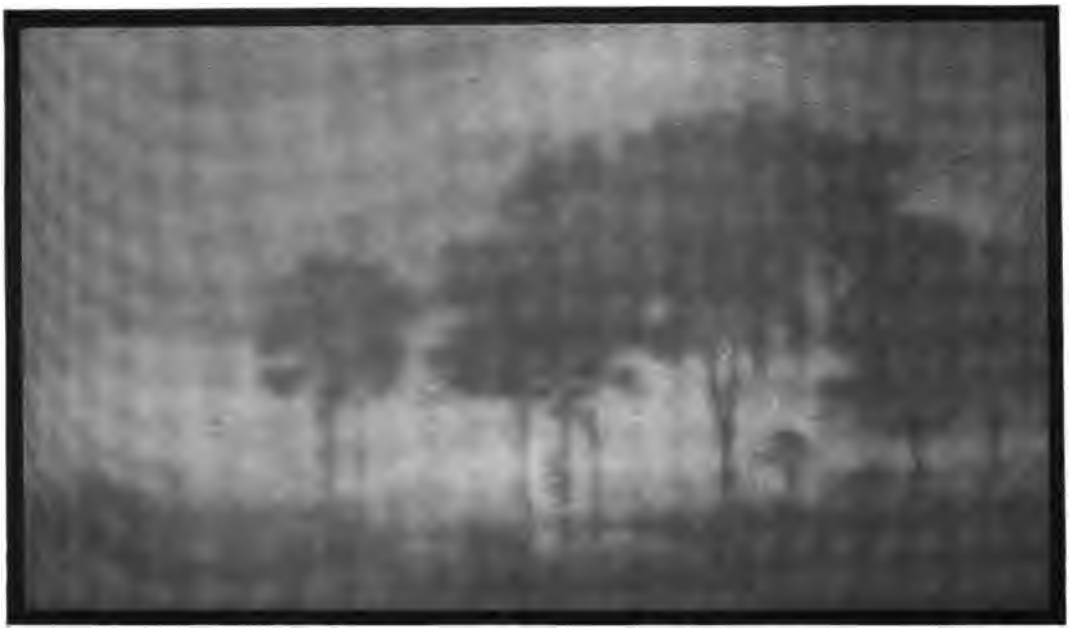
DEAR READER, have you ever paused to reflect that although you have purchased from us the copy of AMERICAN PHOTOGRAPHY which you are reading, that you have by no means paid for it what it costs to produce. This number containing ninety-six pages, filled with illustrations, and printed on fine coated paper, costs the publishers far more than they receive for it. It is not you, subscriber or purchaser, who renders possible the production, monthly, of this beautiful magazine, but the advertisers. These firms, makers of cameras, lenses, plates, films, paper, etc., support the photographic press of the country, and render it possible that you may have the choice of some ten photographic magazines for your instruction and pleasure. Naturally they do not do this out of pure love for the art, but because they expect that through the stimulus you receive, through the enthusiasm aroused, through the knowledge given by this literature, your interest in photography will be heightened, and that in consequence you will purchase more of their goods. Of course, they know that you patronize your dealers, and that their trade increases from month to month and year to year, and they consequently ascribe a due proportion of the credit to the advertising which they do. They like to know, however, that the advertising does actually bring them results by attracting the attention of the readers. Will you not, therefore, carefully read through every advertisement in this number. You will find there mentioned, probably, a number of things which you would like to purchase, and you will notice that the manufacturers have for free distribution, informatory literature which is well worth your perusal. Do not hesitate or delay, but avail yourselves of this information at once. Write to the manufacturers, get their catalogues and their booklets, tell them that you saw the announcement in AMERICAN PHOTOGRAPHY, and thereby prove to them its value as an advertising medium. Last, but not least, buy the goods you see advertised. The manufacturer who has confidence enough in his productions to spend thousands of dollars a year in setting forth their merits to the world, is surely better deserving of your patronage than the man who markets his goods through devious channels and does not have enough respect for his own products to advertise them over his own name.

DR. JOHN NICOL, a pioneer of photography, for many years well-known and loved as editor and teacher, long conductor of the AMERICAN AMATEUR PHOTOGRAPHER, departed this life on Sunday, March 13, 1910. We receive the sad news just as our last form goes on the press and must reserve a fuller notice for our next issue.



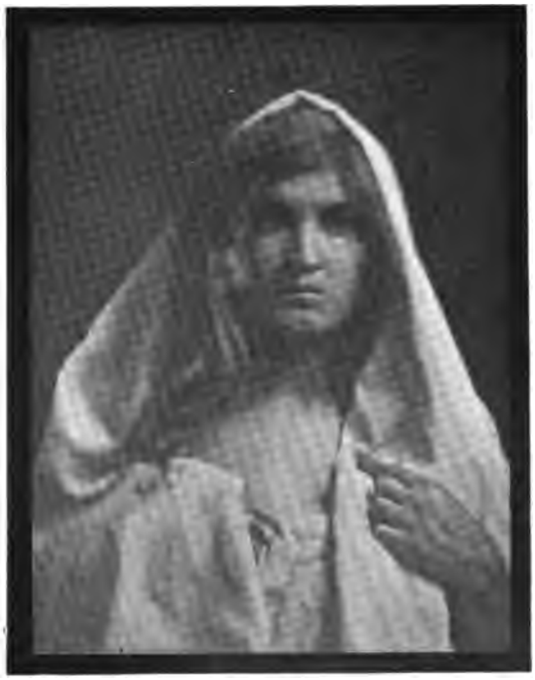
LANDSCAPE
W. H. PORTERFIELD, BUFFALO
Third Prize, Monthly Competition

OUR PORTFOLIO.

Prints for criticism under this heading should be sent to Frank R. Fraprie, 6 Beacon Street, Boston, Mass. Only one by each reader can be criticized each month. Prints are not returned after criticism. An asterisk indicates that the print is reproduced.

431. **Herbert J. Day.** — "Sand Hills." This print shows a rather pleasing arrangement and good texture in the sand. By leaving so little of the sky visible you have minimized its uniform tone, but at the same time you have rendered the little vista of lake so unimportant, that it hardly counts in the composition. It seems to us that you should either have made this a little more emphatic or left it out entirely.

432. **Susie A. Parkinson.** — "The Platte River." This print does not show any pictorial quality. The beauty of the scene is not improved by the waders in the river. The print shows a lack of detail in the shadows, apparently due to a poor choice of printing paper, as detail seems to be present in the negative. There is material at this point for an interesting landscape, if a landscape alone is taken.



433. PORTRAIT STUDY FRED F. CRUM

*433. **Fred E. Crum.** — "Portrait Study." In many details this is an excellent portrait. The lighting is interesting, the exposure about correct, and the pose of the hand pleasing. The drapery, however, does not seem to be quite satisfactory. The material is apparently too stiff, and it does not fall in graceful folds. The right hand, which is apparently under and clasping the drapery, should have been brought farther across so as to close the opening across the bust. We would advise you to try again, using cheese-cloth or chiffon for drapery, so that the folds may be more soft and natural.

*434. **Dr. B. J. Ruzicka.** — "My Father." In some respects this is an excellently lighted and posed portrait, but we cannot quite understand why the flesh tints are so dark. Even though the subject were bronzed by much exposure to the weather, it seems to us that the flesh tones should have been lighter in comparison with the background. Presumably the negative is thin and in this case some intensification will help matters.

435. **Thomas Bradt.** — "A Canadian Winter Scene." Your print shows evidence of considerable under-exposure in the negative, and the print itself is not satisfactory, being too dark in the middle and too light at one side, probably through printing too close to the light. Snow demands accurate exposure to give really satisfactory results.

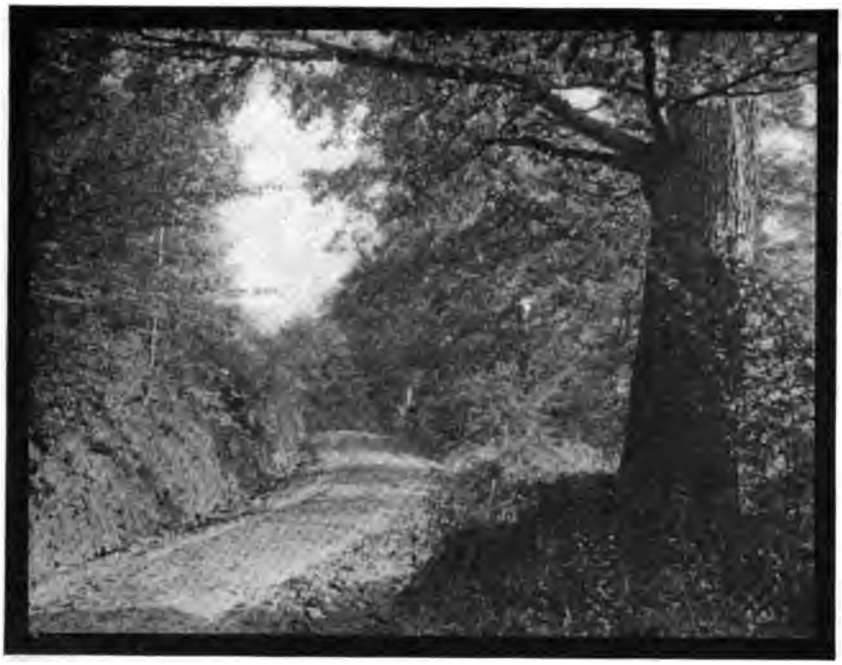
436. **Freed A. Miller.**— "A Winter Day." We agree with you that the trimming of the large print makes a much more satisfactory picture than the print from the whole negative. We think, if you should make an enlargement of this small bit, that it might prove very interesting. You would probably have some difficulty in keeping the quality in the snow, which seems rather flat.

437. **Frank L. Bey.** — "Coasting." This is not a good title for this print, a picture of a boy on a sled in a level field. Of course, it is easier to photograph a sled at rest than in motion, but it does not convey to the beholder any sense of the exhilaration of the sport, and looks rather tame. The photograph is technically very good.

438. **Mrs. C. T. Ellsworth.** — "Bashful Innocence." In taking your little model in a bright light, in front of a dark bush, you have been led into the error of over-exposure and over-development of the whites so that all detail in the dress is lost. A dilute developer would have made a very much better result. The pose is natural and the picture rather interesting if the technical work had been correct.

439. **Harry G. Burns.** — "Back on the Farm." This is a very good outdoor portrait, taken in rather unconventional surroundings. We do not exactly approve of posing young men in fine city clothes on the top of rough rail fences, but this lives up to its title pretty well, and the technical work is good.

440. **Sam H. Shelstad.** — "The Duck Pond." Your pond is too big and you are too far away from the ducks to make an interesting picture. If you will get closer to these rapidly moving birds,



446. A COUNTRY ROAD EARL J. HOUSER

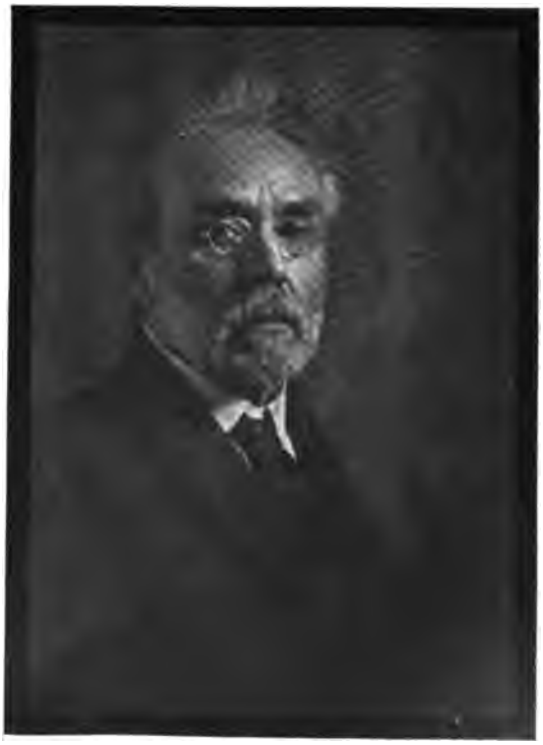
you will find that they will group themselves in innumerable interesting positions, and with a moderately rapid shutter you will be able to make some pleasing pictures. This print, however, not only attempts to show too much, but suffers from under-exposure, so that the shadows under the trees are absolutely without detail.

441. R. V. Heib. — "Playing Barber." This print shows a worthy idea inadequately presented. In the first place you have lost all details in both high lights and shadows, evidence of under-exposure and forced development. In the second place your grouping is not good. The boy who is acting as the barber is standing too far behind his victim, whereas he should have been more at the side to make an interesting group. The youngster who is sitting down looks like anything but a willing victim. He is holding on to the stool with both hands for dear life, and looks as if his hair is being pulled out by the roots, rather than cut off; in other words, he does not enter into the spirit of the joke.

442. S. Katarski. — "Outdoor Portraits." Your exposure here is satisfactory, and one of your subjects is in a rather easy and graceful pose. The other one, however, on the right, is standing too stiff and rigid. The background is a trifle spotty, and we would advise trimming some from the top of the print. Any of the standard makes of bromide paper, or even gas-light paper, will make a satisfactory enlargement from this negative.

443. Carl A. Anderson. — Your picture of a man and a woman sawing wood with a cross-cut saw seems to be printed on too contrasty paper. A softer grade would, in our opinion, make a better print. The negative is pretty dense, apparently, from over-development, so that the woman's white hood merges into the white sky and there is very little detail in the snow. Somewhat more exposure and development in a more dilute developer would have been better for this negative.

444. A. T. Ross. — "After a Hunt." Your picture of the youngster sitting on the wood-pile, picking his bird, with a dog and three cats hungrily watching proceedings while waiting for their share of the spoils, is a well-exposed and interesting genre picture. Probably you could with advantage trim off a considerable amount of the fence



434. MY FATHER DR. B. J. RUZICKA

and wood-pile, as well as a little at the top, as so much irrelevant detail detracts from the objects of principal interest. Otherwise the print is quite satisfactory. Faded gelatine prints are pretty useless things and we would not advise you to attempt to renew their usefulness. Better stick to a more permanent process and make new prints.

445. B. C. Drake. -- "September Day." We cannot find much to commend in this print. You could have made an excellent landscape here without the figures, but a man going in one direction, a horse in another, and a woman looking straight at the camera with her arm over her eyes to shield her face from the sun, do not tend to increase the beauty of this rather picturesque spot. By all means photograph your friends, in proper surroundings, and large enough to be the principal source of interest, but when you go out to take a landscape do not put some small staring figures in the most prominent position in the picture.

*446. Earl J. Houser. — "A Country Road." This is a very pleasing composition, and an excellent bit of landscape work. The road has good perspective, not filling the whole of the picture, as is the case with most amateur pictures taken with short-focus lenses. The large tree might preferably have been a trifle farther away from the edge of the picture, and we would prefer to see its base with more detail, but on the whole this is a much better landscape than the average one submitted to the "Portfolio."

447. F. C. Baseman. -- "The Source of a Stream." In some respects this print displays merit, and if it were printed on a more satisfactory medium, it might be pictorial. The partially bare condition of the limbs, however, is a defect. You have in the foreground and on the left, bushes and trees in full foliage, and rising from these and extending into the sky are leafless trees and bare limbs. The contrast is not pleasing, and makes the sky look all the more bare. The print-out paper, apparently toned in a single bath, increases the baldness of the sky, as the fine details are all lost in the process of toning.

448. O. A. Gorten, Jr. — "A Wood Lane." This picture is far too full of detail. Your lens was stopped down altogether too much and the picture is full of a multiplicity of confusing detail, fallen leaves, limbs, branches, etc., which cause the eye to wander over the whole print without being attracted by any single spot of paramount interest. The road runs exactly to the center of the picture, the weakest spot in the composition.

449. W. H. Schaffler. — "Main Street." The difficulty with your night photograph is that you have given altogether too much exposure. Your lamps are nothing but blurs of halation. At the same time they do not give enough illumination to the street, to show much detail in the buildings. This does not seem to be a suitable subject for night photography, which requires, in city streets, pretty powerful illumination, or else wet streets, giving interesting reflections. For the lights not more than three to five minutes should have been given, but this would have left little trace of anything else on the plate.

450. R. L. Hunter. — "Portrait." For a home portrait this has very good modeling. We feel that you could, however, with advantage have employed a reflector on the shadow side, which would have given a little more illumination to both the cheek and the hair. It also seems to us that this would have been a little more satisfactory if you had made the head a trifle smaller and not cut the sleeves quite so closely on both sides of the print. The vignetting of the lower part is also objectionable, and the print looks much better if you cut it off above the vignetted portion. In general, however, we may say that this is a very creditable piece of amateur portrait work.

451. Dr. F. F. Massey. -- "A Woodland Sprite." This is a graceful pose, and a most interesting picture of a little girl who apparently does not feel constrained or bashful, and is able to hold the desired position without constraint or awkwardness. It is one of the best child poses that we have seen, and is in every respect an attractive and successful picture.

*452. Paul Jones. — "A Canyon Road." This is good technical work, and a pleasing and attractive landscape The arranging and

454. THE MASQUERADER FRED D. GARDNER

452. A CANYON ROAD PAUL JONES

455. A SUMMER DAY — G. P. KIMBERLY

459. SHADOW BROOK — CHAS. A. SCHNEIDER

470. THE OLD FENCE G. H. HEYDENREICH

lighting are both excellent, and the print shows proper exposure and development.

453. J. W. Roeschlan. — "A Glimpse of the City." This print is under-exposed, as to the extreme foreground, making shadows far too black and disagreeable. The straight line of the wall across the bottom of the print would have prevented the composition from being good, even if the technical work had been satisfactory. The distance shows good atmosphere and is the best part of the picture.

*454. Fred D. Gardner. — "The Masquerader." This is an excellent and pictorial idea, and deserves to be tried again and carried out a little more successfully. You have given hardly enough exposure, so that the shadows are dense and opaque, but the arrangement is most pleasing, and the idea is original. We should like to see this repeated with fuller exposure, and enlarged.

*455. G. P. Kimberly. — "A Summer Day." Your landscape is in many respects admirable. The composition of the land masses is very attractive, and the clouds, with their reflections in the water, add beauty and atmosphere to the print. The present print, however, is much too dark, and the shadows in the foreground especially are clogged up. You should be able to make a lighter print and still retain some of the majesty of the clouds. The print is well worth enlarging.

456. F. Meiser. — "A Snow-covered Lane." Hobbema succeeded in making a landscape out of an avenue lined with two rows of trees in his famous picture, entitled "Avenue at Middleharnis," which is in the National Gallery at London. Reproductions of this picture can be had in almost any art store and we would advise you to procure a copy and compare it with your print. You have used a lens of such short focus that the diverging lines of your avenue make almost a horizontal. We do not recall ever to have seen a print showing such a wide angle between the converging lines. In consequence the trees in the foreground appear to be gigantic, and those but a little way beyond, mere shrubs. Rarely can a perfectly symmetrical picture with all lines converging to the center of the print be artistic. Your print shows some under-exposure, but it is otherwise creditable technical production.

457. C. A. Swoyer. — "Liberty Cap." The photography of snow-clad mountain tops is a pretty difficult task. One is tempted to give too short exposure on account of the dazzling whiteness of the snow. This, however, leads, as in the present case, to under-exposure in the shadows. Had you given somewhat more exposure your rocks would not have been so black and you would have had more detail in the snow. The atmospheric rendering is good.

458. H. M. Holden. — "The Mill Dam." This little print has a largeness and breadth which is really remarkable considering its small dimensions. We attribute this to the excellent cloud masses, which fully carry out the idea of magnificent distances which one gets on a casual view of the print. We believe the small size is an advantage, as the buildings on the right would probably become obtrusive if the print were enlarged too much, and the horizontal line of the dam might also be pretty strong, unless the enlargement were carefully managed. The attempt is worth making, however, as you have an interesting composition.

*459. C. A. Schneider. — "Shadow Brook." This is a peaceful and picturesque landscape, showing extremely good technical work. The print, however, is somewhat too monotonous, owing to the employment of too short a range of tones. While you have high lights, your deepest shadow is a light gray. If you could put more vigor into this print, we feel that it would be improved.

460. George A. Nelson. — Your outdoor portrait is taken in an unfortunate location. The long verticals of the latticed trellis against which the young lady is standing are altogether too strong, and completely take the attention away from her face. Under-exposure and over-development are also present, resulting in jet black shadows, and sky and water without detail or atmospheric quality.

461. W. B. Imlach. — "The Road." Your landscape shows exaggerated perspective, caused by the use of too short a focus lens. The road runs straight through the picture in a vertical line in the mathematical center, the weakest arrangement you could have

471. PORTRAIT STUDY U. L. UPSON, JR.

adopted. Had you placed your camera in the snow at either side the lines would run much more interestingly. It is hard to do much with the print, as it stands, as trimming does not seem to improve it. The top of the picture shows signs of movement of the camera during the exposure.

462. Henry Wallis. — You have good values in the snow, but the composition is marred by the horizon line, which is altogether too staring. We should judge that your camera was not held horizontally, as both trees and horizon line are very much inclined to the sides of the print. We believe that you can make a picture from the left hand half of the picture by trimming. We would advise you to do a little experimenting in this direction.

463. Minnie L. Westfall. — Your little portrait shows light coming from too many directions. The main lighting is from the back of the head, giving the strongest high light on the back of the shoulder and the cheek, but you have another light falling on the chin and the bridge of the nose, which may have been caused by a reflector too near the face. Presumably this is done to bring out the profile against the background, but it gives a distracting impression. Had this been slightly less marked, the portrait would have been very good, although it seems to be rather crowded in the space. We do not approve of the vignetting at the bottom, and would suggest that you let your light run farther down on the shoulders so as to give full detail to the bottom of the print.

464. Roy J. Sawyer. — "The Hillside Path." The composition of this print is interesting, and we would not suggest any improvement in this direction, but the values are markedly wrong. Your snow has no quality, being represented by almost pure white paper, and the distant trees show against the sky as mere black lines. The sky itself has good quality, but you should have made your exposure such as to retain snow values. An orthochromatic plate with a yellow screen is an excellent assistant in snow photography.

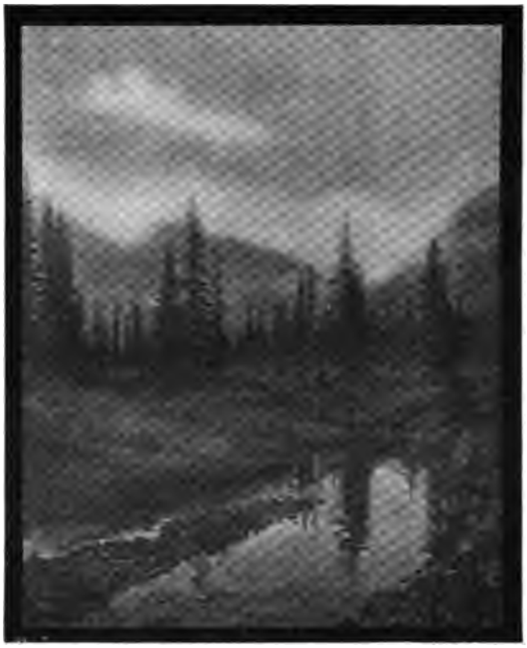
465. P. M. Houser. — "The Fountain." Park scenes rarely make successful pictorial photographs. Even the most skilful landscape gardener cannot reproduce the freedom of nature, and one rarely sees in a park a view which does not suggest the constraining hand of man. A fountain such as you have portrayed, composed of a number of diverging jets, offers no pictorial material in itself, and would spoil the finest landscape into which it could be introduced. In addition to this your print shows signs of under-exposure, which render it unpleasing through its excessive contrasts.

466. Willard M. Maule. — "Landscape." An open panoramic landscape like this offers little pictorial material. You have portrayed far more than the eye can profitably take in at once, and would have done far better had you got close to some one of these picturesque groups of trees scattered over the landscape, and made a picture of it. At the same time this print would be much improved by trimming a piece about two by one and a half inches out of the lower left hand corner, removing the fringe of trees in the foreground, and taking in very little of the heavy cloud masses in the sky.

467. Harry M. Wilson.—"The Brook—Snowbound." This enlargement is tremendously under-exposed. Your snow is represented by pure white paper, without a trace of quality or texture, and the snow-clad trees above it show nothing but a series of black verticals. We do not think that this subject would possess much pictorial merit at the best, but your enlargement certainly does not represent the best that you could do with the negative.

468. H. B. Raymond. — "Country Road." This print shows a most remarkable quantity of movement. Under the lens it becomes apparent that your camera was moved twice during the exposure, giving three distinct images of each object. Under the circumstances we can regard this only as a wasted negative, and would advise you to discard it.

469. A. D. Brittingham. — Your portrait of a man reading was apparently taken under much too weak illumination. The head merges almost entirely into the background, and the shadow side of the body disappears completely into the enveloping gloom. Hardly a trace of texture or detail is left in the coat. As the pose is interesting and natural, it is a pity you did not make a better negative. While the flesh tones are of fairly good quality, the collar is many shades too light, and is by far the most conspicuous part in the picture, which is a serious defect.



473. MORNING SOLITUDE J. W. A. CAIRNS

*470. George H. Heydenreich.—"The Old Fence." You have chosen a picturesque subject, and the print received honorable mention in the competition. At the same time we do not believe that this is by any means the best print you can make from the negative. Your paper seems to be of too contrasty a grade, and there is an unpleasant harshness and spottiness in the foreground which you should endeavor to overcome. The print seems to be too flat, and needs more sparkle and brilliancy.

*471. U. L. Upson, Jr.—"Portrait Study." This is an interesting pose, and was judged worthy of honorable mention in the competition. At the same time, we believe that you could improve on this negative and would suggest that you endeavor to get the same subject again. The flesh tones are rather flat, and we would suggest that you adopt a rather more concentrated lighting on the face, so as to give more impression of roundness. The line of the back is also a little bit too straight. This might have been remedied by pulling the coat out a little at the lower part, which would have taken off the straightness of the line.

472. Caledonia, Mich. — "Signs of Spring." Your stenographer evidently sent your letter before you had a chance to sign it. Your print of a number of young men lounging in the sun is a characteristic village scene, properly exposed and printed. Too many of the group are looking at the camera, and we cannot see that the arrangement was thought out at all. We can call this nothing more than a record.

*473. J. W. A. Cairns. — "Morning Solitude." This is a very picturesque scene and is especially good in atmospheric values. The distant mountains and the sky are extremely well rendered. The foreground, as is natural, in view of the early hour at which the print was taken, seems somewhat under-exposed. The principal artistic defect is the equal importance of the four firs, which stretch through the middle distance. If you had been able by some different placing to have made one of these groups of supreme importance, you would have made a very strong picture. Your enlargemen has far more quality than the original print, which is rather commonplace in its strong black and white tones.

(*The Portfolio was closed on March* 5)

PROFESSIONAL NOTES.

To the Members of the Photographers Association of America: —

To follow in the footsteps of the men who have held the office of president in the Photographers Association of America and who have without exception upheld the honor of American Photography and the prestige of this Association is no light task for any man, however competent he may be. So, in assuming the duties and prerogatives of your presiding officer, I feel that I have undertaken a work that will require my every effort and the most serious endeavor to bring it to a successful conclusion, at least as far as *my* term is concerned. I know that the members of the Association having honored me with their confidence in electing me to the chair, will also honor me by lending their aid in advancing the interests of the Association, and more particularly in helping to bring the 1910 Convention to a successful issue.

As matters are at present, the work of your officers for the year is largely devoted to planning and conducting the annual convention. This by vote of the members will be held at Milwaukee; and at the recent meeting of the executive board, plans were made which it is hoped will assure not only a large attendance at the meeting in July but also a most interesting and instructive session which shall combine all those features which have made the Conventions of the National Association so popular. It is a little early to particularize, but I may say now, that the School of Photography having found such favor, we have decided to continue this feature and, with the knowledge gained in the past, to plan it along even better and more valuable lines. I have received assurances of assistance from the very pick of our profession, giving a guarantee that the School program will be conducted with serious purpose and with the one idea to make it of value in the broadest way to the largest number.

Our Convention Hall is the finest meeting place in the country, and gives us ample room without crowding for the various purposes called for. The Exhibition Hall in particular is a well-proportioned room that will permit of hanging all the pictures entered in a manner that will remove all criticism.

I am especially proud of the fact that, during my term of office, the women photographers of the country will meet as a body, distinct and yet a part of the Association. They will have their own exhibition — in the Exhibition Hall — and they have arranged to have the leading woman photographer of the country present to criticize their pictures. As these criticisms will be given in open meeting, it is, of course, the privilege of all members to share in the instruction that such criticism is bound to impart.

The Second Congress of Photography will meet during the Convention, and I am assured that most of the State Societies will be represented. Here is the opportunity to bring before the photographers of the country such suggestions for the general welfare as may be thought advisable. The Congress is in its infancy as yet, but I see much for it to do in the near future; and it should have the earnest consideration of all who are interested in improving the status and standard of professional portraiture.

The manufacturers will be well taken care of. The halls at their disposal are large and well lighted, and as we are going into territory this year that has not had a National Meeting in several years, there will undoubtedly be a full representation of manufacturers and others interested in the commercial side of the business.

Of the entertainments to be offered to the members, it is too early to speak. They will be abundant and varied. The local Milwaukee photographers are looking after that end, and with the proverbial Milwaukee hospitality, there need be no fear that anything will be lacking for the amusement of all.

Several of the States near by to Milwaukee have abandoned their conventions this year, in order to join with us and make our 1910 Convention that much more successful.

I feel that the officers of these State organizations are doing me a special favor in thus forwarding our interests, and they have my warmest thanks.

After all, I am but in the position of a general with an army back of him. I may direct and plan with the assistance of my brother officials, but unless I have the good will and earnest support of the rank and file, in this case the members of the Association, I can accomplish but little. It is to urge this good will and support that I am addressing you early in the year. Weeks and months pass quickly, and unless we prepare well in advance and make up our minds that we are going to stand by each other and by our Association, we shall find July upon us and ourselves unprepared for the event. Therefore let me call upon you *now* to determine to be in Milwaukee when the roll is called: let me call upon you now to prepare your exhibit, bearing in mind always that it is quality only that can count amongst your fellows, and that if each of you does your best, the 1910 Convention will show such a set of pictures that will be hard again to equal; and let me call upon you to urge your neighbor to become a member of the Association, for you can do yourself the greatest good by getting all to work in harmony and for the general welfare.

If, when the Convention is over, we have progressed one tiny step in the creation of the universal photographic brotherhood which is, after all, the aim of this Association, I shall feel that my work has not been in vain.

Fraternally and cordially,

A. T. PROCTOR,

President P. A. of A.

SOCIETY NEWS.

AT the regular meeting of the Boston Camera Club, held on Monday March 7, the following active members were elected: Lowell T. Clapp, F. A. Hoyt, and Horace B. Pierson. After the business meeting Mr. Warren W. Hart, Councillor of Improvements of the Appalachian Mountain Club, gave an illustrated talk on the White Mountains, which proved very interesting to the members present.

For the annual exhibition which will be held during the first half of May a new plan will be adopted. The exhibition committee has divided the club into two camps, Blue and Red. These two camps are to meet regularly at least once a week for criticism and study of negatives and prints submitted, and are to work in concert, to produce on each side a set of prints of as high quality as possible. For the exhibition each camp is to select from the work of its members twenty prints, which will be hung to form the annual exhibition. An outside jury will judge the pictures, and decide which camp has produced the best collection, and at the May meeting the awards for the best individual pictures will be made by vote of the club. It is hoped that the rivalry and emulation produced by this plan will lead to work of a very high quality.

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DENVER ATHLETIC CLUB, PHOTOGRAPHIC SECTION.—A year ago we chronicled the Orpheum Theater's engagement of Messrs. Stanley McGinnis and George F. Clifton, for an exhibition of lantern-slides made by real color photography. These enterprising members of the Denver Athletic Club's Photographic Section were very successful upon the western Orpheum circuit. Later they traveled extensively in California, making additional color slides and giving lectures in many cities. They returned to their home recently and gave the members of their club and their ladies a complimentary exhibition of two hundred of their newer color slides on January 23. The attendance was the largest in the history of the club. February 3 they gave their final joint exhibition at the Woman's Club building in Denver. They now have so many good slides that in future they will exhibit separately.

February 20 the Interchange set from the Camera club of New York was shown at the Athletic club and was much enjoyed. The views of the new quarters of the N. Y. club were particularly interesting, betokening the great improvement in facilities for photographic work. By request, Mr. McGinnis showed his remarkably fine color slides of the Grand Canyon in Arizona made at Christmas time, just after a four-foot snowfall.

February 22 Mr. McGinnis exhibited one hundred and fifty of his color slides at the Phipps Memorial Home to an enthusiastic audience, and will fill several Colorado engagements before going east.

* * *

AT the annual meeting of the Toledo Camera Club, held February 9, 1910, the report of the secretary showed that the club, during the past year, had made greater gains than during any preceding year since the club was organized. The plan of studying afield has been, perhaps, the one potent factor in our success, as it gave us an insight into how to select the view-point, how to compose, — in fact, how to act as if the print were before the critic and he was telling how much better it would appear with this left out, or something put in here, or the many little things necessary for a good composition. The club has a healthy membership with but few drones, and the finances were never better.

We have had examples of our work on exhibitions at the following places: Sixteen prints at Jamestown, N. Y.; thirteen prints at Buffalo, N. Y.; fourteen prints at Montreal; six prints at Wilkes-Barre, Pa.; have eight prints in the Sixth American Salon; eight prints reviewed in "Photograms of the Year 1909," London; and eight prints accepted at Dresden, although only two were hung on account of curtailment of space originally allotted to work from the United States.

We have had lantern slides from the Missouri Camera Club of St. Louis and the Wisconsin Camera Club of Milwaukee, and our set of slides has been shown in these cities. Our set of slides will be at the service of any club wanting them, the usual rule of exchange to govern. Address the secretary.

The following officers were elected: J. F. Jones, president; W. A. Ward, vice-president; C. C. Taylor, secretary; M. W. Chapin, treasurer.

* * *

THE FIFTH INTERNATIONAL CONGRESS OF PHOTOGRAPHY, BRUSSELS, 1910. — The first International Congress of Photography was held in *Paris* in 1889, with the object of giving those interested in photography, whatever their nationality, the opportunity of meeting together to discuss questions of general importance. It was hoped that in some cases standards might be agreed upon, so that the confusing and often inconvenient variations that occur, for example, in nomenclature, in definitions, in the character of apparatus, sometimes even in the same country, but noticeable more especially in passing from one country to another, might at least be reduced.

This Congress was succeeded by another in *Brussels*, in 1891, and a third in *Paris* in 1900. At the third Congress it was realized that so much remained to be done, and that new developments of photography must always be raising questions of general interest, that a *Permanent Committee* was appointed to arrange for future congresses. Among the members of this committee were M. M. Chapman-Jones, L. P. Clerc, E. Cousin, Davanne, Dr. J. M. Eder, Lt. Colonel Houdaille, Dr. Janssen, L. Lumière, Marey, Dr. Miethe, Colonel Pizzighelli, M. Puttemans, General Sebert, M. M. Violle, E. Wallon.

The *fourth Congress* was organized in 1905 and held at *Liege* during the International Exhibition of that year. At this congress a number of important papers and reports were presented and discussed, on sensitometry, the measurement of light, photographic optics, light filters, the efficiency of focal-plane shutters, photographic chemistry, etc. The report of the proceedings of the Congress met with much appreciation and was soon out of print.

This congress enlarged the *Permanent Committee.* Among those added to it may be mentioned Dr. Baekland, M. M. A. Callier, A. Fonseca, Ch. Fery, Dr. C. E. Kenneth Mees, F. Monpillard, Professor R. Namias, de Potter, von Rohr, and Sreznewsky.

The Permanent Committee, taking advantage of the fact that an *Universal Exhibition* will be held in *Brussels* in the summer of 1910, have arranged the Fifth International Congress of Photography to be held in *Brussels* next August. The Belgian Government have granted their patronage, and the Committee is working with the cooperation of the Association Belge de Photographie, the Union Nationale des Sociétés Belges de Photographie, the Bureau Bibliographique International, the Société Française de Photographie, besides several local committees. Promises of support have been received from all parts of the world, and arrangements have already been made for the presentation of reports by specialists on recent progress and the present state of knowledge in many of the special branches of photographic work.

The local organization committee are arranging special functions, making provision for the accommodation of the members and the ladies accompanying them, and hope to be able to secure special facilities for the journey to and fro.

A complete program of the Congress and all arrangements in connection with it will be issued as soon as possible and sent to any applicant.

The subscription to the Congress is *eight shillings* or *ten francs*, the payment of which entitles the member to all its privileges, and to a copy of the *Report* which will be duly prepared.

Inquiries may be addressed to either of the Honorary General Secretaries — M. Ch. Puttemans, 1, Palais du Midi, Brussels, or M. L.-P. Clerc, 52, Boulevard Saint-Jacques, Paris, XIV.

Subscriptions should be sent to the *Treasurer of the Permanent Committee* — M. E. Cousin, 51, Rue de Clichy, Paris, IX.

Papers for reading at the Congress will be welcomed and should be sent to one of the secretaries, together with a brief abstract of each, before July 1, 1910.

For the Convenience of English Members, inquiries and subscriptions may be sent to Mr. Chapman Jones, 11, *Eaton Rise, Ealing, London, W.*

President, General Sebert; general reporter, E. Wallon; honorary general secretaries, Ch. Puttemans, L.-P. Clerc.

* * *

THE Nineteenth Annual Exhibition of the Capital Camera Club, of Washington, D. C., will be held in the Hemicycle Hall of the Corcoran Gallery of Art, May 7 to 15, 1910, inclusive, and will be open to all photographers. All pictures exhibited will be selected by a jury of artists. An especial and cordial invitation is extended to the members of the Postal Photographic Club to submit prints for this exhibition. Mr. Chas.

E. Fairman, president of both organizations, would highly appreciate the support of members of the Postal Photographic Club. The rules of the exhibition are as follows: —

1. All negatives from which pictures are submitted must be the work of the exhibitor.

2. Framed prints only will be hung, and framing must be plain. Prints may be submitted unframed (though invariably mounted), with the understanding that, if selected by the Jury of Selection, the exhibitor will frame them within a time fixed by the Committee.

3. The title of each picture and the exhibitor's name and address must be plainly written on labels furnished by the Committee, which must be attached to the back of the picture. The Committee reserves the right to exclude pictures which are not properly labeled. No lettering shall appear on the face of the picture.

4. Pictures which have been exhibited in former exhibitions of the Capital Camera Club will not be eligible.

5. Accepted pictures cannot be withdrawn before the close of the exhibition.

6. An entry fee of 50 cents will be required.

7. Pictures must be delivered not later than 8 P.M. April 16, 1910, at the rooms of the Capital Camera Club, 1010 F Street N. W., Washington, D. C.

For further information concerning the exhibition address the Chairman of the Exhibition Committee.

WM. T. WADE,
63 Seaton Place, N. W., Washington, D. C.

* * *

A PRIZE COMPETITION, open to amateurs in the vicinity of Boston, was held by Mr. George H. Slade. The pictures in this contest, which closed February 17, 1910, were judged by Mr. Ennis, Boston representative of the Defender Photo Supply Company, and the Editor of this magazine. The prizes were awarded as follows: First prize, F. W. Kallam, Malden, Mass.; second prize, Walter M. Pratt, Nichols Street, Chelsea, Mass.; third prize, Florence E. Reed, 86 Clark Avenue, Chelsea, Mass.; fourth prize, Joseph R. Poole, Holbrook, Mass.

* * *

THE Jamestown Camera Club reports that the exhibition of the Sixth Annual Salon held under its auspices was very successful, both financially and as a source of inspiration to the members. Several of the members of the Buffalo Camera Club and of the Photo-Pictorialists came down from Buffalo and Niagara Falls to visit the exhibition, some of them more than once. During the course of the exhibition the club had a banquet in the exhibition room, given in honor of the winning side of the membership contest, which resulted in almost doubling the membership of the club. With between fifty and sixty members, the club is hoping for much prosperity in the next year.

THE Seventh Salon and Nineteenth Annual Exhibition of the Toronto Camera Club will be held at its rooms No. 2 Gould Street, Toronto, from April 4 to 9, inclusive. The entries closed March 22, 1910. Gold, silver, and bronze medals will be awarded by the jury to the three best prints.

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THE Fourth Annual Exhibition of the Montreal A. A. A. Camera Club will be held in its building 250 Peal Street, Montreal, from April 11 to 16, inclusive. The entries closed on March 26. Silver and bronze plaques will be awarded.

OUR LONDON LETTER

A. H. BLAKE, M. A.

BOTH pictorialism and politics have engaged our attention during the past month, for on the one hand we have had an election for the presidency of the R. P. S. which has been keenly contested, and on the other one of the finest one-man shows that the Royal has yet held, — that of Alexander Keighley.

The ballot for the election of a new president of the R. P. S. necessitated by the resignation of Mr. J. C. S. Mummery, F. R. P. S., was an exceptionally heavy one, owing to there being two very popular rival candidates in the field, both strong men and both strongly supported by a large following. Mr. Chapman Jones stood for long service of the Society and outstanding scientific claims, while Lord Redesdale could bring position, name, and a fine record as a diplomatist, to enhance the prestige of the Society during a difficult year of office. As the readers of this paper may know by this time, Lord Redesdale was elected, and he promises to be a most capable and useful president. Mr. J. C. S. Mummery has earned the gratitude of the Society by his able services as president. It is perhaps hardly realized how much the R. P. S. owes to Mr. Mummery for the time, attention, attendance, and professional help that he has so freely given to the Society, as well as for his able discharge of the duties of the presidential chair. There were only three changes in the actual personnel of the Council: the three new members being J. C. S. Mummery, Arthur Marshall, and myself.

One principal event of the month has undoubtedly been the opening of the one-man show of the work of Alexander Keighley. He has hung some forty-five pictures, most of them old friends that have graced the London Salon walls for some years past. Of most photographers new work would be demanded if a one-man show was to be of any real interest, but the reverse is the case with Keighley; his pictures stand the test of time so well, have interested those who knew them in the past so keenly, and are so worthy to live, that not to have his old pictures brought together on an occasion like the present would be considered a real loss. He has always maintained such a high standard and been so much the master in his own particular line that his pictures, though old, still hold a premier and undisputed place. It is a great refreshment to see again, side by side upon the walls, pictures which we have known and admired for years and which are so much a part of the evolution of pictorial photography that they will not be omitted or forgotten when its history comes to be written. Such pictures as "Adieu," "Corpus Christi," "The Campanile," "The Olive Branch," "Peace," and a score of others are perennially fresh and interesting. There is this peculiarity about Keighley's pictures, that they appeal to the feelings and to the imagination as well as to the decorative sense, and so to see them again awakens old memories and charms us with the association of old ideas though they are as familiar by sight and reproduction as they can well be.

In his opening address Mr. Keighley departed from the usual custom on such occasions and did not put in an *apologia vitae*, but contented himself with speaking in general terms. He said photographers as a class were roughly divisible into three grades, the professional pure and simple, the mixed professional and amateur, and the amateur pure and simple. The first class as a rule is little interested in exhibitions and considers solely the business side of photography, concentrating on what will please his clients and not very much interested in the struggles of his brother photographers who are striving to make photography an art medium. The second class has many representatives in England and more still in Germany and America; while doing professional work they are half amateurs at heart and take their part, often a yeoman's part, in helping on pictorial work. Of this class perhaps Craig Annan is the most prominent example. The last class, and here we surely find Mr. Keighley unconsciously sketching his own distinguished portrait, is the amateur pure and simple (as the word means — the lover), who from no motive of gain or desire for notoriety does or seeks to do beautiful things from pure love of the beautiful and without hope of any personal advantage. As Craig Annan said in my hearing the other night at Glasgow, photography seems to reverse the usual rule that it is the professional in any pursuit to whom we are to look for the highest in any trade, business, or pursuit. In photography it is an undoubted fact that to say that work is professional is to pass a taint upon it and to discount its value in the eyes of the best judges. In photography it is the amateur and not the professional who knows and leads. No doubt Mr. Keighley's work is as familiar on your side as ours, so I need not, even had I the space to, describe any of the pictures in detail.

I am now in a position to give my readers definite information respecting the two London exhibitions: The Royal will be held in the gallery recently occupied by the Salon but a month earlier than usual, — namely, from August 19 to September 17. Rooms will be provided for the scientific section, but the trade section will have to be in abeyance altogether this year. It is desirable that work for this exhibition should be got together as soon as possible. The Exhibition of the London Salon of Photography, which this year takes the place of the usual exhibition in Pall Mall, will be held at the Fine Art Gallery in Bond Street, one of the best localities and most suitable galleries in London, and will take place from the beginning of September to October 8, thus following the Royal. The organizers of the London Salon of Photography assure those who send them work that every single picture will be judged on its merits and that the members will not hang their own work till the outside public has had a fair representation, according to the value of the work which has been sent in. There will also be a fine show of foreign work which is already assured. The secretary is Mr. Reginald Craigie and the address Fine Arts Gallery, Bond Street, London, W.

I have been making some experimental prints on a new paper which is being introduced into this country from Germany. It will be known as the Trapp "Matt-Albumen" paper. It seems to offer a most valuable medium for artistic printing, the half-tones are very delicate, the color obtainable pure, and the printing rapid. I hope to speak more at length about it later, but in the meantime it may be stated that the London agents are Trapp & Co., Milton House, Chiswick Street, London, E. C.

OUR TABLE.
CHAS. E. DAWSON.

Material for examination and books for review may be sent to Frank R. Fraprie, 6 Beacon Street, Boston, Mass. Any book reviewed will be supplied by our Boston office at the price mentioned.

PRACTICAL SUGGESTIONS REGARDING THE SELECTION AND USE OF A PHOTOGRAPHIC EQUIPMENT. Written from actual experience. Illustrations by the author. Austin K. Hanks, East Orange, N. J., 1910. Price, $1.

The author, who is connected with the Bausch & Lomb Optical Co., has brought into this beautifully made and illustrated volume his experiences in photography. It is illustrated by a large number of prints, which, from the standard of technical excellence, leave nothing to be desired, and many of which in addition possess much pictorial excellence and human interest. Having had much experience in photography, both in this country and abroad, Mr. Hanks is fully competent to give advice on the subject of the choice of lenses and cameras, and he does this in a fashion which shows his thorough acquaintance with modern photographic instruments. To be sure, the range of lenses which he considers does not go outside of those made by Bausch & Lomb, and his cameras are all products of the Eastman Kodak Company and its divisions. He finds among these, however, a sufficient choice for every purpose, and he explains his reason for this choice most thoroughly and comprehensively. The chapters on his methods of work are extremely illuminating, and every photographer who masters this book will know how to make prints of the highest technical merit.

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PHOTOGRAPHISCHER ALMANACH 1910, 30te Jahrgang. Von Hans Spörl, Leipzig. Liesegangs Verlag, M. Eger, 1910. Price, 1 Mark.

This little year-book contains an excellent calendar of photographic discoveries and advice, a number of useful articles on various photographic topics, and a complete list of photographic novelties for 1909 of German manufacturers.

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AGENDA LUMIÈRE. Paris, Gauthier-Villars, 1910. Price, 1 fr.

This annual, prepared by the Lumière Bros., and published for them, contains, as usual, full directions for the use of all the specialties made by this firm, and in addition a very large amount of useful information on photographic matters of all kinds. The book contains nearly 500 pages, and is a veritable mine of information for the photographer who can read French.

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ROMANTIC GERMANY. By Robert Haven Schauffler. New York, The Century Company, 1910. Price, $3.50 net.

With all the flood of books on travel which have poured from the presses of England and America in the last five years, there seems to be very little written on Germany, and Mr. Schauffler says that to find any real description of Germany's picturesque towns, we must go back to a book of Bayard Taylor's published in 1846. He has endeavored to fill this lack, and has produced a volume full of word paintings and of most picturesque and vivid descriptions of a series of the interesting German cities. He leads us from Danzig in the north, in a well-ordered succession, through Berlin, Potsdam, Brunswick, Goslar, Hildesheim, Leipsic, Meissen, Dresden, Munich, Augsburg, and Rothenburg. Each of these cities is worthy of the account which he gives it, and of the most beautiful illustrations which have been painted by various artists to illustrate it. The pictures give the photographer many an idea as to picturesque treatment, and will make him long to see these cities, so full of picturesque material. The accounts of the various towns do not purport to give more than impressions of their externals. In this they succeed well, and the reviewer knows hardly a book of travel which gives such a vivid impression of characteristics as this.

* * *

IN UNFAMILIAR ENGLAND. By Thomas D. Murphy. Boston, L. C. Page & Company, 1910. Price, $3.

A year ago we reviewed Mr. Murphy's former book on England, and in this attractive volume he has described another trip in which he avoided cities and well-known towns and penetrated to the little traveled roads of the beautiful isle. There is hardly a county or a village of picturesque beauty which he does not touch upon, in this easily written volume. The illustrations are partly from water-colors, but in a large measure from photographs, and well portray the charming scenery of the English rural districts. The book will afford every traveler in England useful hints of little-known places well worth visiting and photographing.

* * *

THE Bingham Company, of Binghamton, N. Y., has placed upon the market Bingo Gaslight papers and post-cards, and also a line of chemicals for developing, fixing, etc. Full particulars and price list will be mailed to any of our readers on application.

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GRAHAME, ELLERBY & Co., Ltd., press photographers of London, are desirous of purchasing news photographs of American events. Any of our readers who desire to market their prints in England will do well to write to this firm. See advertisement elsewhere.

* * *

THE March, 1910, issue of the *Commercial Travellers' Magazine* contains eleven excellent full-page reproductions of photographs by the well-known pictorialist, Dwight A. Davis of Worcester. Mr. Davis is well known to photographers, through having for a number of years organized an annual exhibition of photographs for the Worcester Art Museum. The *Commercial Travellers' Magazine* is published in Springfield, Mass., and single copies of this issue may be had for 20 cents apiece, post-paid.

* * *

THE Berlin Aniline Works, 213 Water Street, New York, N. Y., have ready for distribution the new Agfa book of photographic formulas. This will contain about one hundred and sixty pages of formulas for the manipulation of all of the standard places, papers, and films, with an enormous mass of information needed by every photographer on developers and chemicals. This book is prepared to sell for 50 cents, but for a limited time the publishers will send a copy to any photographer who will enclose a label from the wrapper of any package of Agfa chemicals, together with 10 cents to pay for postage. Undoubtedly you have on your shelves a bottle of Agfa developers or chemicals, and if so we would advise you to remove the label from it and accept this opportunity.

* * *

HAVE you tried making sepias in the first development? This method, much simpler than the method of redeveloping, is explained in the booklet now being distributed by the Kilborn Photo Paper Co., one of our advertisers. If you have not received a copy, write them that you saw it in AMERICAN PHOTOGRAPHY and they will send you a copy free.

WITH THE CAMERA. — Notes from the Illinois College of Photography and the Bissell College of Photo-engraving. Three new cameras have been added to the Three-Color Department at the Engraving College, bringing joy to the copy shooters. Sixty of the students and some of the faculty went to St. Louis last month on a mid-winter excursion, and took lunch with Papa Cramer at the Cramer dry-plate works. They afterwards visited the Strauss Studio, the stock houses, and other places of photographic interest. Student McMackin of the I. C. P. piloted one car of students for the Strauss place. Very curiously he headed them north, *via* Peary's Etah route, instead of south on the Grand Avenue trail. He maintains that he had carefully computed his latitude and allowing for the way the city was revolving round they would have met the Strauss Studio at about the place he figured, and saved a lot of time. He is going to reserve this for the opinion of the Copenhagen University and says he is also going to submit the question, on what grounds the Cramer place is called a "dry" plate factory. The students of the two colleges also took a trip through Yellowstone Park *via* moving-picture machine and Professor Leffinwell of Chicago, last month, and had a grand time. The only thing lacking was the opportunity to work their view cameras. Mr. J. H. Scott of Ely, Nev., formerly instructor in the printing and finishing department, made us a pleasant visit last month on his way to Fairbury, Ill., to look after his studio there. Mr. Dubois of 1908, Mrs. Graves of 1909, Mr. Marcus of 1907, and Mr. Leon Adams, the "man of mystery," returned to the college last month. The College Camera Club held a reception and contest on the 24th, and first, second, and third prizes were awarded to the work of Miss Rumsey, Mr. Bolton, and Mr. Pierce, respectively. Miss Sarah Cane, student of 1906, was married last month to Mr. Albert Goldthorpe of Douglas, Ariz. A number of the students took part in the Elk's Show in this city on the 7th and 8th and made a handsome looking bunch of Venetians.

(OMITTED BY MISTAKE LAST MONTH)]

CORRESPONDENCE.

This column is open so far as space will allow for the expression of readers' opinions on subjects of general interest. The Editors are not responsible for opinions thus expressed.

"THE AMERICAN METHOD OF MOUNTING"

BUFFALO, N. Y., March 1, 1910.

To the Editor of AMERICAN PHOTOGRAPHY:

Dear Sir, — We are interested, but quite unconvinced by Mr. H. Snowden Ward's letter on the above subject in your March issue. Mr. Snowden Ward has given an excellent reason why the extreme type of multiple mounting might have appropriately been termed the "Holland Day Method of Mounting," but, as it appears to us, he offers no justification whatever for the application of the term "American" to a method which, so far from being characteristic of American work, has never been taken up in this country, except by a few workers, and has certainly never enjoyed here anything like the popularity which followed its introduction into England.

It is precisely at this tendency on the part of some English writers, when treating of American photographic matters, to confuse the part with the whole that our parenthetic remark that "with some of them to label a thing 'American' is . . . the most convenient way of damning it" was directed. Possibly Mr. Snowden Ward forgets, among other instances, the chorus of denunciation in articles, interviews, and correspondence which followed the Photographic Salon of 1908. Entirely oblivious of the fact that the organization which excited their wrath was in no sense representative of American Photography, many of these protestants indulged in heated generalities about "American" methods and ways. Or possibly this practice of *some* English writers has escaped Mr. Ward's notice; but his own quotation from "a very prominent American amateur" shows that there are others besides ourselves who have observed the tendency to which we refer.

Of course, Mr. Snowden Ward knows America too well to confuse the tendencies, methods, and characteristics of any individuals, or of any single group, with those of American photography in general; and that is one reason why we are so surprised to find him attempting the defense of such a misnomer as the heading of this letter.

In conclusion, we would call his attention to the fact that we raised no objection to this method of mounting being "damned." Quite the contrary!

Yours truly,
PHOTO-PICTORIALISTS OF BUFFALO.

PRACTICAL HINTS

Original short articles and discoveries are desired for this department, and $1 each will be paid for such as are accepted and published.

BROMOIL PIGMENTING. — Several inquiries about inks and pigmenting in this process have been received. As for ink, some difficulty exists in getting the best materials in this country. Demachy says: "I have come to the conclusion that all sorts of inks, except the non-drying lithographic transfer inks, can be of use, but that only two samples will meet the everyday requirements of the oil printer." These are Valette's "Encre Machine" and "Encre Taille Douce" which can be obtained in England from J. A. Sinclair & Co., Haymarket, London, costing one shilling or 25 cents per pot. They can be obtained from this firm by mail. Griffin's, Kingsway, London, sell at the same price ink in tubes, prepared by Rawlins, the inventor of the process. These pigments are mixed without turpentine and are thinned if necessary with pure or cooked linseed oil. Suitable ink can probably be purchased in small quantities from any engraver or plate printer in our larger cities. If a very soft pigment, suitable only for flat prints or very contrasty negatives, is wanted, Winsor & Newton's "Stiff" oil colors in tubes may be used.

Brushes also are difficult to get in this country. In Boston they may be obtained at the photographic department of Houghton & Dutton's. They are known in the trade as "stipplers" and are used for stenciling. They are round, and have flat ends. The "pied de biche," or stag foot brushes, cut slanting and somewhat domed, are not to be had in America, but may be had of Sinclair or Griffin's, ranging in price from 25 cents to $2.50 each.

The following directions for pigmenting are furnished by Messrs. Griffin's: —

"The print, after treatment as described last month, and thorough washing, is placed face up on a pad of clean blotting paper which has been previously saturated with water. This pad may consist of several thicknesses of ordinary blotting paper supported on a flat surface, such as a piece of glass. Take off from the surface of the print the superfluous moisture. This is done by taking an old handkerchief, damping same, and then dabbing the print. It is most important to moisten the dabbing rag, so that it does not extract the moisture absorbed by the gelatine. Now spread a little of the prepared pigment on a palette (a piece of clean glass will answer the purpose) very thinly and evenly, taking care to avoid as much dust as possible. A good plan is to use a quarter plate piece of glass, and use the lid of a plate-box as a cover; this not only prevents dust, but keeps the pigment from drying so quickly. The special brush is then applied to the patch of pigment until the tips are just touched with pigment. It is then dabbed upon a plain piece of glass; this distributes the pigment lightly and evenly over the brush, and it is then ready to apply to the print.

"*Warning:* The secret of success rests largely in starting with an extremely small quantity of pigment, and in spreading it quite evenly upon the brush.

"There are two ways of manipulating the brush when applying the pigment, namely, 'hopping' or 'dabbing.' The 'hopping' method consists in holding the brush vertically about two inches away from the surface of the print, allowing it to drop, and catching it again as it bounces. This method is most suitable for light, delicate subjects which do not possess any very large dark areas. At first the pigment will only adhere very slightly, but gradually the image will develop, being gradually built up. Of course the brush will frequently require replenishing with pigment, especially at first; but when the picture nears completion, this will not be necessary.

"In the case of heavier subjects it is best to dab the pigment more or less all over the print at first (except the face or high lights, which should be developed out by 'hopping'), and complete the print by the 'hopping' method. 'Hopping' and 'dabbing' may be used alternately, and varied according to the conditions and the effects sought. It should be remembered that 'hopping' tends to produce contrast; 'dabbing' gives heaviness and flatness.

"By a variation in the manner of applying the brush, all kinds of effects can be obtained, and a great deal of 'control' is at the command of the worker. 'Hopping' with a brush fairly free of pigment takes off the color, and lightens distance or clears the high lights. 'Dabbing' with a full brush puts on color and deepens shadows or hides unsightly features of the composition. Any part of the picture may thus be manipulated according to the taste and feeling of the worker, and without affecting the rest of it; or perfectly 'straight' prints may be made with equal facility.

"If a considerable time is spent in pigmenting, the coating may lose its moisture by evaporation, the result being a difficulty in obtaining contrast. In this event the print must be slipped, face up, under the surface of the water in a deep dish for five or ten minutes. When the picture is completed it is only necessary to pin it up to dry. This may take a few hours only; but in certain conditions of the atmosphere it may be a day or so before 'tackiness' quite disappears. As soon as it is fairly hard, any vagrant pieces of hair from the brush or fluff from the blotting paper may be removed. This can usually be done by rubbing with a dry cloth, and in the case of hairs by the use of a needle or sharp point of a knife.

"The brushes should be washed immediately after the print is finished. Take a cake of soap and lightly rub the brush with it; then rub the brush upon the palm of the hand, allowing the water to gently run between the brush and the palm of the hand. This must be repeated until the soap suds remain perfectly white; rinse, and allow to dry.

"NOTE. — When a print has an uneven or degraded appearance in the high lights it may be improved by placing it, when it has been pigmented a day or so and is perfectly hard, under water and rubbing with the finger at the bottom of a dish until it has a smooth appearance."

* * *

MOUNTING. — This, in the full sense of its meaning, is the last operation in the making of a photographic picture, but by no means the least interesting or important. A little thought given to certain accepted laws of ornament is not only advantageous but necessary if a pleasing result is to be obtained. The most important of these laws to remember are, simplicity, balance, harmony, contrast of subordination. Harmony and simplicity need no defining.

Balance. — After the most careful trimming of a print, it sometimes leaves something to be desired in the balance of its composition, and in the case of portrait and figure studies much may be done in the placing of our picture on its mount to render such faults less obvious. If the picture has been cut off too abruptly at the base, greater margin of mount there will help; a profile may be too near to one side, increase the margin of mount on the side the figure faces. A good plan is to first decide the size our mount is to be, then upon it, and under a piece of glass the same size, place the picture where it looks most restful. The glass will keep the print in close contact and help considerably to come to a decision. With landscape, seascape, and architectural subjects, it is generally advisable to have the margins of a horizontal picture about equal on all sides, and those of a vertical one very slightly wider at top and bottom; always avoid extremes.

Contrast. — We will now suppose that we are about to mount a print that is somewhat indefinite in color — it may be by any process. On placing this flat, under glass, on different colored mounts it will be found that it apparently changes the tone of its color, and if our stock of mounts is varied, there will be no difficulty in deciding which color we must select to show the picture to the best advantage. Grays and browns are generally considered most useful, but very beautiful shades of green are made that will be found of especial value with untoned bromide papers. Vigorous pictures in the brighter colors will be most suitably dealt with by the equally brighter mount. The most important function of the mount is to detach the picture from its immediate surroundings, and so gain undivided attention for the picture; therefore it must follow that the mount must be subordinate in every way to the chief interest, — the picture.

A simple, inexpensive, and effective mounting is to be found in the use of passe-partout, and in this connection a very effective way of overcoming an occasional drawback to this form of mounting — a tendency on the part of the mount to warp away from contact with the glass at the center of the picture — after the print has been mounted and seems ready for hanging, paste a piece of paper cut to the shape of a Maltese cross, on the back of the mount with a thin paste that has been well rubbed into the paper; as this dries, it shrinks, and tends to pull the mount close up to the glass. — FRANK MASTERS.

* * *

ECONOMY IN EXPOSURES. — Few beginners and not all advanced workers are proof against the fascinations of color. We go out with our cameras into the bright days of summer and all about us we see green fields bordered by fences of brown rails or gray stone. A flock of white sheep is grazing near, and the bright blue sky is veined with filmy white clouds.

The scene appeals to us; we set up our camera, and the ground glass shows the view in all its beauty.

What a disappointment awaits us when we develop our plate! The green grass is almost black; the blue sky and the sheep are of the same chalky white; the fleecy clouds have disappeared, and in place of the exquisite scene our eyes beheld we have an uninteresting print — and a wasted exposure. The orthochromatic plate supplemented by a proper ray filter will give us approximately true values of light and shade, but if we have been misled by the beauty of coloring presented by a view, we are bound to be disappointed by the print. The monochrome reproduction falls so far short of the original! How many plates and how much disappointment would be spared if we could but see the finished print before we make the exposure!

A well-known method is to view each scene through a piece of blue glass, which will give us an idea of the appearance of the final print. But a piece of glass is not a handy thing to carry around, and the average amateur is usually loaded too heavily with other impedimenta to consider any additional burdens. It is possible to dye the ground glass a light blue, however, and automatically protect oneself from the deception of blue sky and autumn leaf. Photographic dealers will procure or make such a ground glass for you, but it is cheaper to make one's own, and by experiment one can obtain the exact shade of blue desired. Too deep a color will make focusing difficult, and too light a shade will defeat the purpose for which it is used.

A piece of clear glass cut to the required size may be coated with the following solution, which is the regulation ground glass varnish, to which enough indigo has been added to give it quite a decided blue tint.

Gum sandarac	45 grains
Gum mastic	10 grains
Ether (C. P.)	1 ounce
Benzol	½ ounce
Indigo	q. s.

In purchasing the benzol for this preparation, be sure not to get the petroleum benzine. Care should also be taken in the use of this formula not to bring it near an open flame of any kind, as the mixture is highly inflammable.

The glass plate must be warmed slightly and flowed evenly with the solution, the excess being caught and bottled for future use. — A. E. SWOYER.

COLOR TONING OF PRINTS AND ENLARGEMENTS. — The toning of bromide and gas-light paper prints in various colors is not as popular with the average camera worker as it should be, and is mostly confined to the redeveloping process, producing sepia and brown tones.

Several most excellent books have been published treating on the toning of prints. The formulas given have been worked out with scientific exactness by the ablest men; but with all the material available, comparatively few have entered into the field.

The principal reason for this lack of popularity is, in my opinion, the inconvenience connected with the work. Some of the chemicals are not easily obtainable, others do not keep unless carefully preserved; each ingredient has to be weighed out exactly, in all, it is too much trouble for the most of us. Now that the difficulties and inconveniences have been done away with, the interest in variously colored prints will certainly be awakened.

When the firm of Schering & Glatz requested me to make some practical tests of their Varitone tablets, I was most pleasantly surprised with the results obtained. I toned both contact and enlarged prints made on paper of various popular brands without the least trouble. The colors obtainable are green, blue, and from sepia to red, including a numerous variety of intermediate shades.

One of the greatest advantages observed is, that the whites in the picture remain remarkably clear, — an advantage I failed to get with all other formulas, especially when endeavoring to get green tones.

All the resulting colors are of excellent quality. The green is surprisingly fine — it is a true green, not the bluish tinge usually obtained.

The different chemicals required for toning are put up in the very convenient form of compressed tablets contained in numbered vials. No scale is required to weigh out exact quantities. All we have to do is to count out the necessary quantity of tablets of the variety needed to give the color desired, and dissolve them in the quantity of water given in the directions. The solutions are decomposed when exposed to daylight. The manufacturers even advise one to prepare the solutions by artificial light. I found the following method of preparing and protecting the solutions very practical. Take a perfectly clean bottle, say of 8 ounces capacity (preferably amber colored with glass stopper), and cover same completely up to the neck with black paper, such as we find our dry plates or gas-light papers wrapped in. The paper is easily put on with photo-paste.

Now let us, for example, prepare the solution used for green toning. Measure off 6 ounces of water in the bottle, take 3 tablets out of vial marked No. 1 and 3 tablets out of vial marked No. 2, break them up on a clean piece of paper, or, if available, in a mortar, and ***dissolve*** them ***completely;*** then add 3 tablets out of vial marked No. 3, also broken up so that they will dissolve more quickly. The solution kept in a bottle covered in this fashion will keep for a reasonable length of time, and can be prepared safely in daylight. A vigorous print will give the best results, as the toning process does not seem to intensify the image to a noticeable extent. I do not deem it necessary to discuss the other formulas of Varitone tablets, as full directions are given in the circular enclosed in package, but let me give the reader and prospective user of Varitone tablets some cautionary advice. All toning processes are mechanical to a certain extent only. The ultimate result is obtained by chemical changes. It is therefore absolutely necessary to work "***chemically pure.***"

Any interference caused by the presence of another substance will cause failure through secondary reaction. The prints should be thoroughly fixed, preferably in an acid hypo bath containing alum to toughen the prints for their future treatment. Fix prints for about fifteen minutes and wash at least for that length of time in running water. Place the wet print face upward in a perfectly clean tray, flow enough solution over to cover it, and rock vigorously to insure even action. Toning will be completed in from three to five minutes. The final washing must be done very actively, especially in the beginning, as it is essential to get the toning solution out of the print quickly. Washing is usually completed in about five minutes. Papers coated on heavier stock take of course longer to wash out the chemicals than thinner papers. Toning as well as washing must be done in very weak daylight, or better by artificial light. I would suggest that toning be done in the evening, the ordinary fish-tail gas-burner being an absolutely safe light. If prints are toned and washed in too strong a light the whites will become discolored and the prints will have a flat, hazy appearance.

The selection of color for a print is to a great extent a matter of taste. The green tone, for instance, is very pleasing for summer landscapes or pictures of the sea; snow and ice pictures will be charmingly improved when toned a fine blue; brown sepia and red adapt themselves to portraiture, etc.

Lantern slides and transparencies tone also beautifully in Varitone solutions, and the ***modus operandi*** is the same as for papers. For lantern slides we must have a slide that has been well cleared and not too strong, as by transmitted light the color may interfere with projection. Slides and transparencies must be washed for at least one half hour. A brother photographer showed me some very fine slides toned with Varitone tablets, but unfortunately I had no opportunity to see them projected to judge the effect of the light on the deposit and in what value the colors show on screen.

The Varitone tablets will not only be of great interest to the amateur, but should also be a boon to the professional for special and exhibition work. — E. F. KELLER.

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IN order to encourage our readers in the production of photographs of technical and artistic merit, we award prizes each month to pictures submitted in competition, the subject being as specified each month. The rules are few and simple, as follows:

1. Any photographer, amateur or professional, whether or not a subscriber to AMERICAN PHOTOGRAPHY, may compete.
2. One or more prints may be sent in each month. Each print is judged on its own merit. Only one print from a contributor will be given an award in any month.
3. Prints must be sent to AMERICAN PHOTOGRAPHY, 6 Beacon Street, Boston, express or postage fully prepaid, to reach us on or before the closing date.
4. Prints MUST have nothing on back but sender's name and address, and title. All information, requests for return, and postage for return MUST be sent in a separate letter of notification.
5. Prints will be returned ONLY if request is made at time of entry, and if conditions of rule 4 are observed. We accept no responsibility for safe return or condition of prints, but will endeavor to pack safely and return in good condition.
6. It is requested that no prints or mounts larger than 8 x 10 be sent, as they are almost always damaged in transit by mail.
7. Each competitor agrees by making entries that any of his pictures may be reproduced, if awarded a prize or honorable mention, by the publishers of AMERICAN PHOTOGRAPHY.
8. Prizes of $7.50, $5.00, and $2.50 in value will be placed at the disposition of the judges each month. They are authorized to withhold one or more if the quality of the prints submitted is not satisfactory. Prizes will be paid in goods selected from the lists of any of our advertisers, books, or magazines. Winners are invited to notify us of their choice of prizes promptly after publication of the awards in the magazine.
9. Every contestant agrees to accept all conditions and awards, by entering pictures.

1910 COMPETITIONS

Month	Subject	Closes	Results Published
December	General	January 1, 1910	February Number
January	Landscapes	February 1, 1910	March Number
February	General	March 1, 1910	April Number
March	Water Scenes	April 1, 1910	May Number
April	General	May 1, 1910	June Number
May	Children	June 1, 1910	July Number
June	General	July 1, 1910	August Number
July	Flowers	August 1, 1910	September Number
August	General	September 1, 1910	October Number
September	Portraits	October 1, 1910	November Number
October	General	November 1, 1910	December Number
November	Still Life	December 1, 1910	January Number
December	General	January 1, 1911	February Number

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Section	VII	Negative development.
Section	VIII	Velox printing.
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A Few Hints on Commercial Photography. — There are a number of branches of photographic work in which the equipment of the amateur is as efficient as the more elaborate outfit of the professional, with the advantage of greater portability. It follows that in such classes, among which may be numbered the photography of machinery, old documents, silver and glass ware for advertising and catalogue purposes, the amateur should be able to do work that will rank with that of the professional, — provided that his experience has taught him the little arts of manipulation necessary. For those whose experience along such lines has been limited, the following suggestions are made: —

In photographing machinery, bright spots can be rubbed over with putty, in order to lessen halation and excessive contrast. Cut glass should be photographed against a dark background; in the case of a pitcher or bowl, it may be filled with ink or other dark fluid. Engraved silver is a different matter; small, flat pieces may be taken with a dark background and diffused light, but loving cups and vases should be filled with cold water and the exposure made as the moisture condenses on the outside. Care should be taken that the exposure ends before drops are formed. When copying letters or documents that have been much folded, they should be placed between two pieces of clear glass, held at the ends with rubber bands; if the original paper has yellowed with age, an orthochromatic plate will prove necessary.

Work of this class should show fine detail; this means small stops, a tripod, and long exposure. Excessive contrasts appear and the danger of halation is ever present; backed plates and tank or factorial development are the preventives. Prints should be made on Solio or one of the developing papers, glossy preferred, and ferrotyped.

With the aid of these suggestions, any photographer should be able to secure results; the question of turning the results to profit is a matter of individual opportunity — and push. Your friend the jeweler may take kindly to the idea of having postal prints made of the newest articles in his stock, to be mailed to customers just before the holiday season; the editor of the local paper might buy a photograph of his new linotype machine to circulate on blotter or calendar; the plumber might fancy a view of his shop or window showing the novelties in his line; careful work, tastefully mounted, will appeal to almost any good business man. The field is broad, — it is only necessary to look for the opportunity and to be ready for it when it comes. — A. E. Swoyer.

* * *

Exposure Records. — It is a great advantage when developing time comes around to have at hand a record of the conditions under which each exposure was made, for only by such knowledge can the desired effect — the *motif* of the picture — be obtained. For such data the pocket exposure record or diary is most convenient, when it has not been left at home in the pocket of some other coat. In my own practice (I admit with shame that the confession brands me as one of the careless workers) this was too often the case, and I adopted a fool-proof method that, although not new, may have been forgotten.

A small piece of celluloid was let into each side of the wood base of the plate holder, and on this all notes were written in pencil. When the holders were again loaded, the pieces were cleaned ready for new records by the application of a damp cloth. If the film pack adapter is used, lines may be ruled on the aluminum back with an awl or a sharp knife, the record being kept as before. The pencil marks will erase as readily from the aluminum as they will from the celluloid. — A. E. Swoyer.

* * *

Labels for Bottles. — A writer in the photographic column of a northern paper refers to the clearing up and proper arranging of the dark room and its contents for the winter campaign. He says: "One of the most important things in this connection is to properly label bottles and trays so that each may be used for its own proper purpose. One of the best ways to label bottles is by grinding the surface of the glass, which can easily be done by shaking the bottle in a box containing small shot and emery powder. The best way to do this is by having a box into which you do not place the bottle, but along the top of which the bottle is laid. Wings of cloth or leather come from the side of the box in such a way as to leave an opening into which the bottle fits, so that the wings prevent the shot and emery powder flying out of the box. Of course, the whole of the bottle which is exposed to the shot and powder will be etched, therefore that part which fits into the box should be covered with paper pasted on it, and allowed to dry, leaving space for the label mark to be etched. Paper letters may be cut out and stuck in the label space, with the result that the label will soon show an etched ground surrounded by the clear glass of the bottle, and with the letters of the title also in clear glass. This can only easily be done in the case of short names, such as pyro, alum, hypo, etc. In other cases the name can be written with black varnish on the ground-glass label."

* * *

Helping Interior Illumination. — It is often possible in taking interiors to reduce the exposure to one half or even to a quarter of what would otherwise be necessary by the use of magnesium, not as the main illuminant of the picture, but as a ready means of getting light into the deeper shadows. If it is to be used, it is better to employ it in the form of ribbon than of flash powder, as the ribbon is much more under control; the tendency with flash powder is always to use too much of it and so obtain an altogether false effect. This must be carefully guarded against. Another point to attend to is that of reflectors. While focusing, a lighted lamp should be held in every position to be occupied by the lighted ribbon and a sharp lookout kept for reflections of it in the subject, either in picture glasses, mirrors, or similar objects. Another thing to guard against is a false shadow due to the magnesium. This is best prevented by freely moving the lighted ribbon all the time, and by taking care not to use too much of it. A foot or two of ribbon judiciously burnt, kept moving all the time, will make all the difference between under and correct exposure.

* * *

A Convenient Backing for Plates. — Perhaps one of the least pleasant backings which can be used is caramel, as in application the material tends to soil almost anything with which it comes into contact, but the climax of trouble is reached when the time comes for removing the caramel. Perhaps the cleanest and most satisfactory backing is the old bitumen backing proposed in the early eighties, a thick, syrupy solution of bitumen in benzine being applied like paint to the backs of the plates. This dries rapidly, and those who do not judge of the progress of development by looking through the negative, can leave the bitumen film intact until the development is complete. If, however, it should be considered desirable to remove the bitumen backing before drying, this may be quite easily done by one forward movement with the edge of a table-knife, the blade being held at an angle of about 30° with the plate. Under these circumstances the bitumen separates in small brittle scales. Those who object to these scales can, by following a prescription given in *Apollo*, make use of a thin layer of a plastic mixture compounded of bitumen, pigment, and india-rubber solution, which can be rolled off by the fingers, without casting about scaly particles or soiling anything. In 50 c. c. of benzole dissolve 5 grams of bitumen, and mix this well by rubbing in a mortar with 2 grams of lampblack. Now add 10 to 15 grams of ordinary india-rubber solution, and mix well. The composition keeps well in a perfectly closed, wide-mouthed bottle, and it appears to be the most generally satisfactory backing yet suggested.

* * *

Preserving Efflorescent Crystals. — Efflorescent salts, like the ordinary "soda crystals," or carbonate of soda crystallized with 10 molecules of water, are often rather troublesome to preserve in a constant condition, and a contributor to *La Revue Lumineuse* suggests a plug of damp cotton-wool in the neck of the bottle just below the cork. Here we have just the reverse of the old device of a hollow stopper containing chloride of calcium.

* * *

Warm Tones by Redevelopment. — Whilst the following suggestions are made by Herr Petrasch for obtaining warm tones on lantern plates, it is obvious that the process is equally applicable to prints. Soft results should be aimed at in the primary development, and then after fixation and thorough washing the image should be converted into silver chloride by immersion in a bath of

Potassium bichromate............	16 grains
Hydrochloric acid................	8 minims
Water..........................	1 ounce

In this the print or slide should be left till it is perfectly white, and then well washed till absolutely every trace of color is lost. The washing must be thorough, as the bichromate is very tenaciously retained by the gelatine. The plates should then be dried.

The developer recommended is in the form of a stock solution, and is, —

Hydroquinone..................	12 grains
Sodium sulphite..................	120 grains
Distilled water..................	1 ounce

For use this is mixed with an equal quantity of water, and to every ounce of the diluted developer should be added 50 to 75 minims of acetone.

This developer gives a rich purple tone similar to that obtained by gold toning. If the quantity of water is increased five or six times the tones range from purple through brown to red, and these tones are more readily obtained if the plates are exposed to daylight.

* * *

Two loops of string from the tap, by which a negative can be suspended below it, form a simple and most efficient device for washing one negative at a time.

* * *

Flash-light Work. — Herr Pettauer gave the following simple little rule, at a recent meeting of the Vienna Photographic Society, for finding the necessary quantity of magnesium flash-light powder, for any given case. It is based on the fact that at a distance of 1 metre, which is practically a yard, between lens and object, the quantity of magnesium powder required was 3 grains, lens aperture F. 9. Then for any other distance, multiply this quantity by the square of the distance, and the result by the increase required for the altered stop. Thus, what would be the amount of magnesium at a distance of 4 yards with F. 11: then

$$4 \times 4 = 16$$
$$16 \times 3 = 48$$
$$48 \times 1\tfrac{1}{2} = 72 \text{ grains}$$

I have not tried this, but it seems feasible.

* * *

For blue-printing a strong vigorous negative gives the best results.

Blue-printing should be carried on until the shadows assume a bronze color.

Blue-print paper can be prepared and dried ready for printing in ten minutes.

Developing of the blue-print in water can be assisted by laving with a soft sponge.

Washing in slightly alkaline water will reduce the intensity of an over-printed blue-print.

A weak solution of ferric chloride (2 grains to the ounce), will effect a slight intensification of blue-prints.

Violet tones on blue-prints can be produced by placing print in a warm five per cent solution (23 grains to ounce) of lead acetate.

The image of a blue-print is made permanent by washing out in water the ferric salts that have been unaffected by light.

A sizing made of 180 grains of arrowroot, 40 grains of glucose mixed with a little water, a pint of hot water added, and the whole boiled, should be applied to porous paper before sensitizing for blue-prints.

The quality of the print depends upon the negative, and, like all printing processes, the best negative gives the best blue-print.

Warm black tones can be secured by immersing the blue-print in a cold saturated solution of gallic acid; wash well and transfer to a diluted solution of sodium carbonate.

The operation of mixing the sensitizing solution, as well as coating and drying of the paper for blue-prints, should be done in a darkened room by lamp or gas light.

Home-made ferro-prussiate paper freshly prepared is equal to if not better than, any paper manufactured, but will not keep so long or so well as the commercial product.

Washing the blue-prints should be continued until all yellow color has been removed and the high lights are clear. The print is then left to soak for ten minutes in a tray of clean water.

After coating either paper or fabric for blue-printing the support should be quickly dried. This is best accomplished by moving the coated material to and fro over a lamp or stove.

RECENT PATENTS.

CHAS. B. DAWSON.

Abstracted by F. C. Beach. Copies of any of these patents may be obtained at 10 cents each from Munn & Co., Patent Solicitors, 361 Broadway, New York City.

December 28, 1909.

944,595. PHOTOGRAPHIC CAMERA. Ernst Braubürger, Berlin-Friedenau, Germany.

An improvement on the well-known Goerz-Anschutz camera, whereby the system of levers used to open and close the camera is worked uniformly and evenly. It consists of an endless band around the camera attached to all levers moving in one direction, and preferably another band moving in the opposite direction, controlling the remaining levers.

944,749. SAFETY SHUTTER DEVICE FOR MOVING-PICTURE APPARATUS. Charles M. Stanley, Hamilton, Ohio.

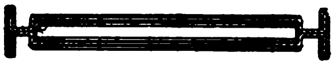
An improvement on a patent of April 7, 1909. The former patent covered the use of a jet of air to keep a film cool by blowing away heated air. The present invention provides a light shutter hinged above the film, which drops and intercepts the light and heat if the air current fails.

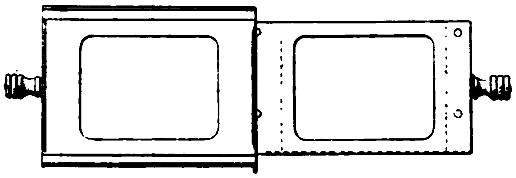
944,787. APPARATUS FOR THE OPTICAL PROJECTION OF COLORED IMAGES. Benjamin Jumeaux, Southwick, England.

This invention allows accurate superposition of the images projected by three lenses, so as to obtain a sharp image in natural colors from three partial images and suitable color screens. The improvement over previous methods consists in using prisms with double internal reflection, so constructed that the emerging images are not parallel to the axis of the projecting lens, but make such an angle as to render correct superposition possible.

January 4, 1910.

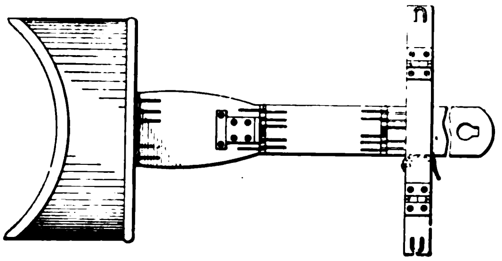
945,619. LANTERN-SLIDE CARRIER. Thomas Sharlow, New York, N. Y.

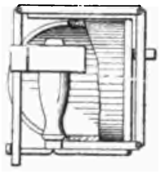




It is a metal carrier intended to be more compact than the usual wood carrier where the glass slide is dropped in at the top and is then pushed inward in front of the condenser. The frame for the carrier to operate in is shown on the left of the long illustration, and a cross-section is shown in the smaller one. It is composed of one piece of thin sheet metal, with parallel sides, having coinciding picture apertures; the top and bottom ends are bent inward, then together, then flaring outward to form heads for the purpose of occupying the same space in the lantern that the usual carrier does. On the bottom edge of the frame at each end are downward projections for holding the carrier from sliding horizontally when locked in position by the usual flat spring in the carrier hood of the lantern. Within the fixed carrier slides back and forth the movable carrier, made also of one piece of thin metal with apertures on each side, open at the top, and reinforced inside by a fibrous non-combustible material, at the ends and in the center. Knobs are attached at each end for manipulating the carrier. The whole forms a simple carrier, easy to apply and operate.

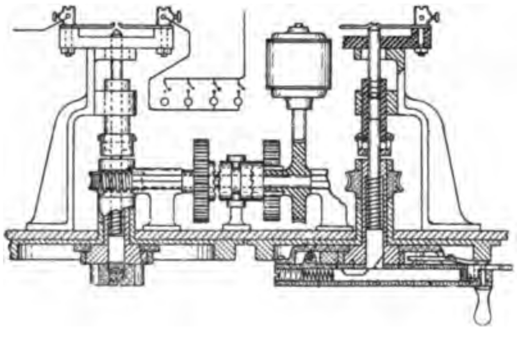
945,631. STEREOSCOPE. Thomas J. Stockdale, Dubois, Penn.





The main idea is to make the supporting base for the slidable picture holder to move on, in sections connected by spring hinges for compact folding up. The large view shows the base extended; it also shows how the ends of the picture support are hinged for folding up. The small view represents the base completely folded up over the hood while handle is turned backward and inward within the hood. It has the merit of occupying a minimum of space when packed in a trunk or suit case. The spring joints allow the base to rapidly assume the horizontal straight position when the catch holding the outer end is released.

945,697. PHOTOGRAPHIC PRINTING APPARATUS. W. B. Conaway and C. L. Stevens, Aurora, Ind.



The apparatus shown relates to a mechanism for regulating the time of exposure to light of a printing frame and a device for automatically extinguishing the light when the prescribed exposure time has expired. There are several small details it will be unnecessary to explain. The illustration is a horizontal sectional view. What appears at the bottom end showing a handle on the right is one vertical side of the mechanism. The bottom sectional line is a stationary disk, on the face of which are divisions marked off to indicate minutes or seconds. There are two disks; the one on the left is intended to indicate a longer time. At the right of the center of the machine and above is the electric driving motor, connected to a gear on the main shaft running across between the two disks. The small gear to the left of the main driving gear meshes into a larger gear, whose shaft passes through the clutch box (not seen), terminating in a small pinion gear, which meshes with a large gear wheel. A clutch operated by a pivoted lever transmits the power to one or other gears, to make the shaft between the two pointers, one over each disk, revolve faster or slower, as may be desired. Each end of the shaft has a worm gear, which operates a worm gear wheel on the tubular shaft (the gear is observed on the left of the illustration); the lower portion of the tubular shaft connects with the movable indicating pointer, which is made rather large. The lower longitudinal section of the pointer is on the right below. Within the rotating tubular shaft is a stationary electric contact pin, pressed outward by an encircling spring shown in the sectional view of tubular shaft on the right. When the fast or slow disk pointer is released by operating the handle below on the right, electric contact is made by the spring pushing upward the stationary central shaft, whose outer end connects two spring electrodes, which operate the electric exposing lamps (shown diagrammatically on the left), and they remain lighted until the latch at the outer end of the pointer on the graduated disk contacts with a pin on the periphery of the disk, which breaks the electric circuit, extinguishes the lamps, and stops the electric motor. There is another friction clutch for locking the moving pointer to the revolving tubular shaft and a peculiar pivoted latch attached to the end of the movable pointer. It appears to be an ingenious construction for putting on and shutting off the electric light and current and for obtaining any desired exposure.

January 11, 1910

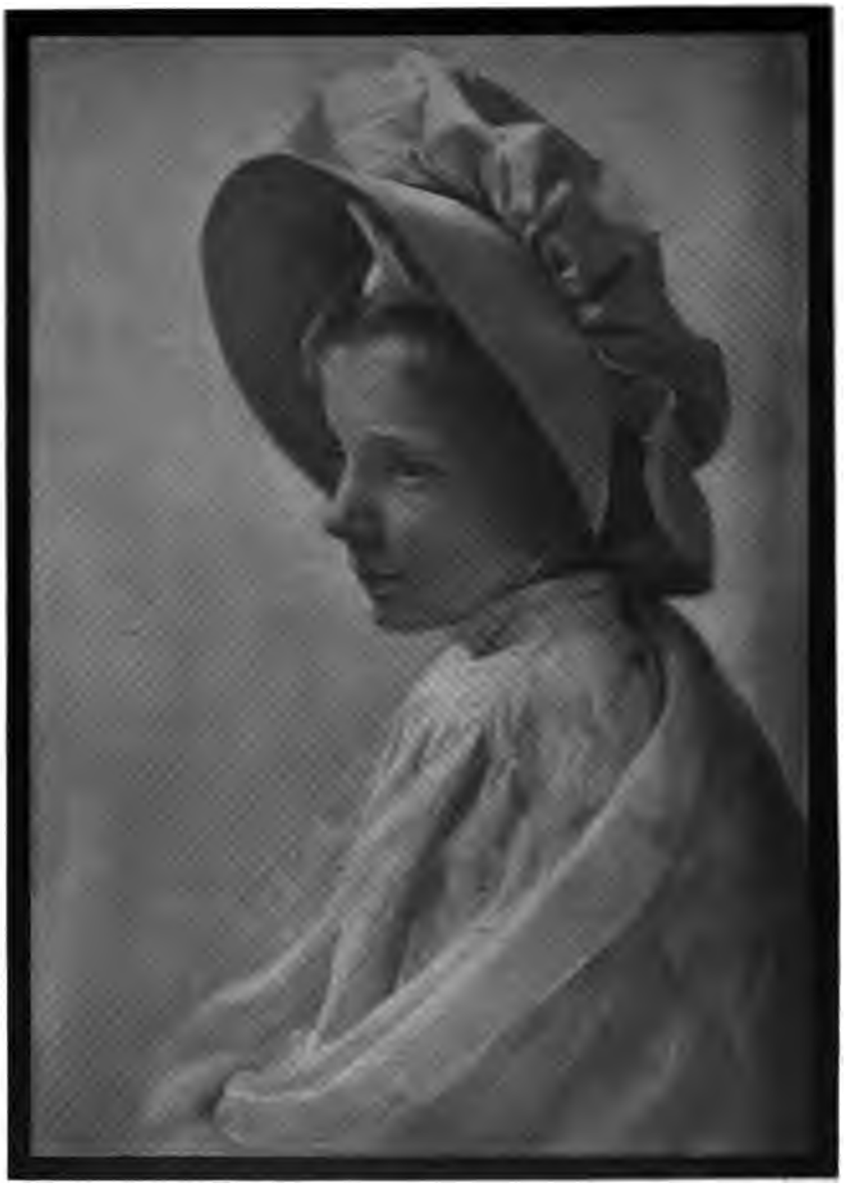
946,339. PANORAMIC STEREOSCOPE AND STEREOGRAPH. E. P. Crocker and A. B. Payne, St. Louis, Mo.

A means for exhibiting panoramas, moving pictures, etc., in a stereoscope. Two series of views, substantially similar, but so made as to be capable of stereoscopic unital, are arranged on a single film so that the corresponding portions are caused to visually unite by a combination of lenses and prisms. The films are rolled on spools and caused to travel past the openings in the film carrier by suitable gearing.

946,470. PROCESS FOR MAKING SCREENS FOR COLOR PHOTOGRAPHY. Carl Spath, Berlin-Steglitz, Germany.

A process for making three-color screens, depending on the absorbing powers of bichromated gelatine. The inventor takes advantage of the fact that certain dyes will color exposed bichromated gelatine in preference to unexposed, while others act in the opposite fashion. A plate coated with bichromated gelatine is exposed to light under a screen ruled with black lines, about twenty to the millimeter. The excess of bichromate is washed out, and the plate immersed in a mixture of red and green dyestuffs. A suitable red dye with an affinity for the altered gelatine is azo-rubin and ponceau in crystals 6R, while a suitable green dye with an affinity for the unaltered gelatine is naphtholgreen. The excess of dye is washed out, leaving a red-green line screen. The plate is now sensitized with bichromate again, and exposed under the line screen turned at right angles to its former position. Washing thereafter eliminates the bichromate and also the dye from the unaltered gelatine. It is now dyed in a blue solution containing, for instance, methyl blue, brilliant blue for wool G, and brilliant azurine, which has affinity for the unaltered gelatine. After a final washing the red-green-blue screen consists of green and blue quadrangular elements between red lines.

946,501. CARRIER FOR STEREOPTICONS. Horace W. Force, Newburgh, N. Y.



MARJORIE
C. L. PECK, BUFFALO
Buffalo Camera Club

Camera Notes

ORGAN OF THE
CAMERA CLUB OF NEW YORK
121 West 68th Street

APRIL, 1910

Board Meeting. — The monthly meeting of the Board of Directors was held on Tuesday evening, March 1, Vice-President F. Scott Gerrish in the chair, President F. S. Hastings being absent in Bermuda.

The treasurer reported a favorable balance on hand. The secretary read one or two communications, one from an absent trustee relating to his disapproval of some changes that had been made in the arrangement of the furniture in the main gallery. Mr. Charles R. Flint was elected an active member of the club. Mr. C. G. Clinton Bell was appointed a member of the Print Committee, in place of Mr. Little, who had resigned.

Mr. Maximilian Toch spoke of the Fifth International Congress of Photography, to be held in Brussels this year, and that photo-chemical contributions would be solicited. Mr. Toch stated that in the name of the Camera Club of New York he would send an original article on the chemistry of light, and that he had been made a member of the congress.

After some further discussion, the meeting adjourned.

Club Meeting.—The regular club meeting was to have been held on Thursday evening, March 3, but as there was no quorum present, it was adjourned.

Lantern Slide Exhibitions. — On the evening of March 2 a set of slides was shown by Capt. Hans Rueser, commander of the S.S. "Kaiserin Augusta Victoria" of the Hamburg-American Line, illustrating scenes and incidents of a German South Polar Expedition on the S.S. "Gauss," specially equipped for scientific observations. The steamer reached as far south as 82°, where she remained harbored in the ice for eleven months and fourteen days. The slides were exceptionally fine and beautifully colored. Some of the slides, showing ice formations and huge icebergs, received great applause from the audience. It was a most interesting lecture and very keenly appreciated. After the lecture, refreshments were served by the Welsh Rarebit Club.

It may be also well to state that the first officer, Mr. Carl F. Schetelig, of the same steamer, entertained a few members of the Camera Club on board the ship on Monday evening, February 28. Lantern slides by the invited members and by Mr. Schetelig were shown, after which refreshments were served in the smoking room of the steamer.

Friday evening, March 4, the Interchange set of the Trenton and Tacoma Society and Club were exhibited. The Tacoma set included many views of mountain scenery and mountain forests of vast extent, as well as excellent views of Mount Tacoma from different locations.

On Wednesday evening, March 9, lantern slides were tested. Mr. Murphy exhibited several excellent slides of Niagara Falls and examples of hard slides slightly colored to show how they could be improved.

On Friday evening, March 11, Mr. Harold M. Bennett gave an entertaining illustrated lecture, entitled "A Little Journey through Japan," explaining by beautifully colored lantern slides (colored by Japanese boys) the different forms of agriculture, rice culture, the silk industry, pottery manufacture, manufacture of screens, ivory carving, and many other kinds of things. Many views were of street scenes, and of the various kinds of flowers, cherry trees, wistaria, and other brilliant-colored flowers, and other views showed mode of home life.

There was a large audience present, including many ladies, and the lecture was greatly appreciated.

Print Exhibitions. — During March there was on the walls an exhibition by Miss Tracy and Mr. Wolf, comprising about thirty comprehensive prints of each of these two members, and about forty general prints representing the work of about twenty other members. This exhibition remained on the walls until about the first of April.

It is the intention of the Print Committee to have a spring exhibition, to begin on April 9, and at the opening, tea will be served by the ladies of the club, and a musical program will be arranged by the president, Mr. Hastings.

It is requested that every member of the club shall send two or three pictures to the Print Committee, who will accept as many as possible for the Spring Exhibit. A general style of work is requested. These prints must be delivered to the Print Committee not later than March 31, and may be framed or unframed.

AMERICAN PHOTOGRAPHY

Vol. IV. MAY, 1910 No. 5

JOHN NICOL, PH.D.
Editor, The Beacon, American Amateur Photographer, American Photography

DR. JOHN NICOL

F. C. BEACH

WE recorded briefly in our April number, with deep regret, the death of our dear friend and co-editor, Dr. John Nicol.

For the past year and a half his health had been poor, in consequence of a painful incurable difficulty, which greatly enfeebled his strength and required constant nursing. This he had at the Clifton Springs, N. Y., Sanitarium up to the time of his death, on Sunday, March 13, 1910. His remains were removed to Tioga Centre, N. Y., on March 14, where the funeral was held on March 15, attended by one of his sons, Robert A. Nicol (resident of Elmira, N. Y.), his wife, and her relatives. The burial was by the side of his second wife, Elizabeth Ransom, of Tioga Centre, N. Y. Her death occurred in April, 1905.

Dr. Nicol was born in Forfarshire, Scotland, on July 4, 1828. In his thirtieth year, 1857, he married, at Dundee, Scotland, his first wife, Elizabeth Urquhart, who died in 1876. Five children survive him, two of whom are living in the United States, one in England, one in Scotland, and one in Australia.

Dr. Nicol in his boyhood days was given a good education, was apprenticed to the drug business, and developed a liking for chemistry. He was a devoted student, and became a teacher of science in the Edinburgh High School, in the seventies. We find him, in 1876, announcing himself as consulting and analytical chemist, having erected a new laboratory and studio, for private instruction in chemistry and photography, at 16 Warriston Crescent. A statement is also made that arrangements have been perfected for the preparation of dry plates, a stock of all ordinary sizes of which will be kept on hand, and that plates by any special process can be obtained at a few hours' notice. (This was before the commercial production of the present-day gelatine plate.) He was prepared to execute commissions in different departments of photography, such as printing in silver or carbon from amateurs' negatives, copying paintings, drawings, works of art generally, make landscape and architectural photographs in any part of the country, make enlargements from small negatives for paintings in oil or water color on paper or canvas.

His announcement states, further, that he will continue the manufacture of the rarer chemicals that may be used in photography. The studio was erected mainly for the convenience of those of his friends who might wish to practice portrait photography.

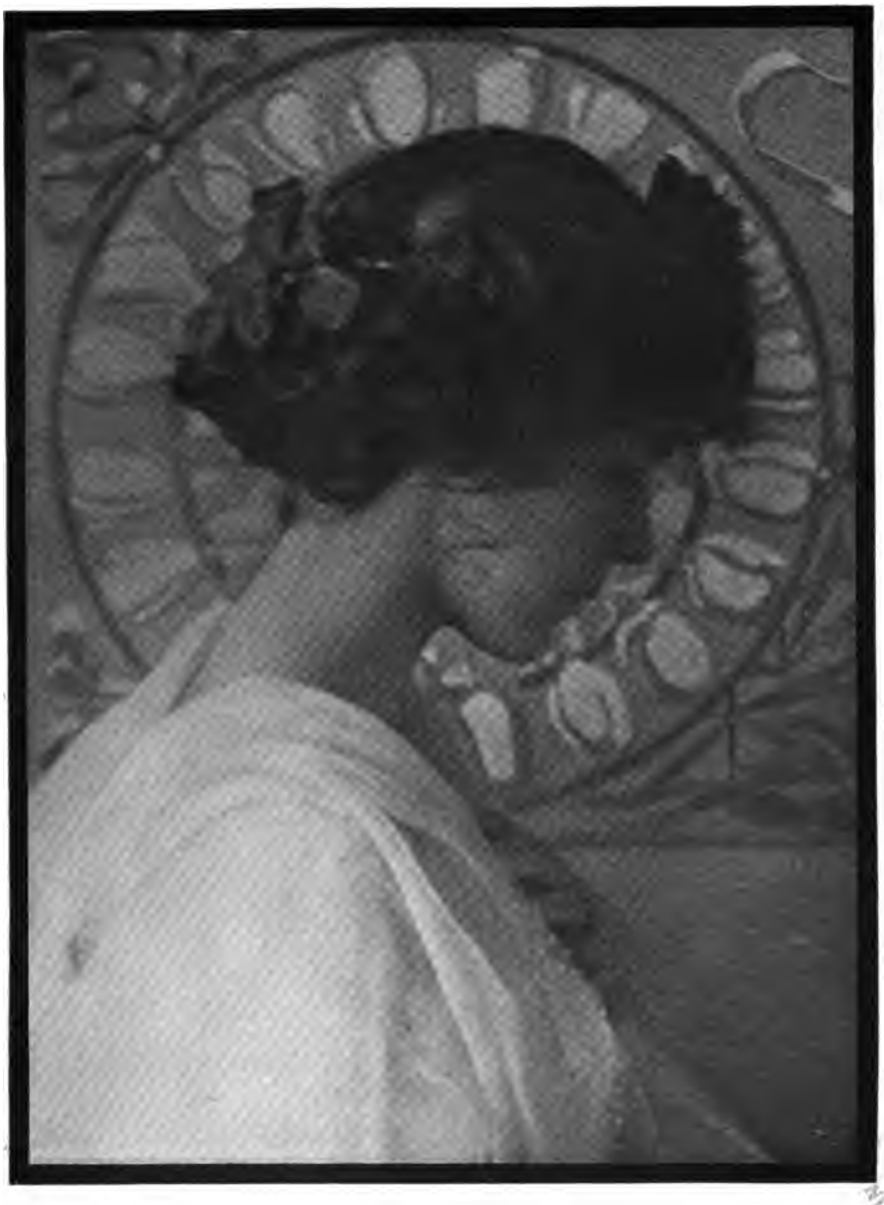
In a booklet giving a retrospect of St. Bernard's United Free Church, Edinburgh, from 1823 to 1902 (a church favoring congregational methods), is found a portrait of Dr. John Nicol as one of four superintendents of the Sunday-school of that church.

In 1880 David Patrick, of Edinburgh, editor of Chambers' Encyclopedia, engaged Dr. Nicol to revise and rewrite the article on "Photography" in the encyclopedia. Patrick, in his letter, wished Dr. Nicol to rewrite any portions that are inaccurate, defective, or antiquated. Among the applications of photography, he requests Dr. Nicol to extend any that are practically valuable at the expense of any that are not.

It is interesting to note just here that an article on "Photography," written by Dr. Nicol some time in the nineties for a certain publication that never was begun, was acquired by the present proprietors of the Encyclopedia Americana, and was revised by Dr. Nicol, before publication, at the request of Mr. F. C. Beach, the editor-in-chief of the Americana.

Prior to his leaving Edinburgh and Scotland, in the latter part of 1885, he secured letters from his old friends and acquaintances, testifying as to his abilities.

In a letter dated June 1, 1885, James Donaldson, Professor of Humanity in the University of Aberdeen, Scotland, states: "Dr. Nicol discharged effectively his duties as lecturer on chemistry



DECORATIVE PORTRAIT
GEORGE AMY, NEW YORK

in the High School of Edinburgh for several years. He took great pains in preparing the experiments which he was to show to the class, and in choosing such as would be interesting and instructive, he gave clear expositions of the subject. He holds a high place as a lecturer on chemistry."

A well-known physician in Edinburgh, Fellow and Treasurer of the Royal College of Physicians of Edinburgh, speaks of Dr. Nicol as having had the sole management of the laboratory department of the Royal Public Dispensary of Edinburgh, the duties of which he was thoroughly competent to perform. In providing drugs for dispensing, he conducted the work in an economical and efficient way. He was quite successful in giving instruction to the pupils in practical pharmacy and the selection and compounding of drugs.

Another friend says of him, "After conducting for a series of years the business of a chemist and druggist in Edinburgh, he became enamored of chemical science, more especially in the department of photography, relinquished business, and gave himself wholly to scientific teaching." He concludes in these words: "Altogether, he is a man possessed of great ability, pleasing manners, aptness in teaching, and an excellent pharmacist."

The various comments indicate clearly the esteem with which he was held at his own home, and how well he was fitted to fill the post as editor of one of the early journals relating to photography in the United States.

Dr. Nicol was a member of the Pharmaceutical Society of Great Britain, also of the Edinburgh Photographic Society, of which he was corresponding secretary in 1877. In 1873 he was treasurer of St. Stephen's Ward of the High Constables of Edinburgh, instituted in 1611. He was a regular contributor to the *British Journal of Photography*, and an intimate friend of J. Traill Taylor, the editor of that publication.

After leaving Scotland, Dr. Nicol made his home in the United States and located in the city of Chicago, Ill., where he became connected with a photographic journal, named *The Beacon*. The first number appeared in January, 1889. His name as editor is not mentioned, but it is understood he did some work on it. Afterwards the name was changed to *The Photographic Beacon*, and again to *The Photo-Beacon*. Dr. Nicol then issued a business card, stating that he was "editor of the *Photographic Beacon*, consulting expert in photography, office and laboratory at 185 Wabash Avenue, Chicago, Ill." He acted as a judge in several photographic exhibitions.

In Chicago, in 1889, he was chosen president of the Chicago Camera Club, and was active in promoting its interests. For about five years he conducted the *Photo-Beacon*, and during that time, in 1891, moved to Tioga Centre, N. Y. He was succeeded in the *Photo-Beacon* by F. Dundas Todd, whose magazine is now merged with others in AMERICAN PHOTOGRAPHY. Dr. Nicol's connection with this magazine began in February, 1896, at which time he assumed the position as managing editor.

He inaugurated the department of criticism of prints of beginners, which has since been enlarged, and forms one of the instructive features of AMERICAN PHOTOGRAPHY, the successor to *The American Amateur Photographer*. The latter began its existence in July, 1889, about six months after the *Beacon*.

Dr. Nicol was a fluent, interesting, well-informed writer, a man of sterling integrity, most sincere in his work, and possessed a kindly, affable disposition. He was ever ready to give information about photography when called upon. In fact, his hobby was photography, and he loved to discuss it. It was his lot to know photography from the very beginning to its latest perfection — the transition from the Fox Talbert paper negative, the Daguerre silvered metal plate, to glass, transparent films, and autochrome color photography,—an opportunity few men have had. He lived a good life, was beloved by all his family, and though suffering great pain during his last days, patiently endured it to the end. The fruits of his labor as a teacher will long be remembered by those who came under his ministrations.

TOTTIE
H. W. TAYLOR, CAMBRIDGE

A NEW AND SIMPLIFIED METHOD OF MAKING ENLARGEMENTS

F. J. MORTIMER, F. R. P. S.

BY the method here given the processes of exposure and development, in making a bromide enlargement, are conducted simultaneously and automatically. In other words, when the exposure is completed, the development is also finished, and *vice versa*. It is only then necessary to fix and wash the print in the ordinary way.

The advantages that this method offers to the busy man are obvious. Most photographers are also adverse to waste. The considerable saving in developer and materials that the process effects is a strong point in favor of its general adoption. Observations on the different experiments leading up to the results given must be reserved for a later occasion; suffice to say, the final results arrived at have demonstrated the practicability and usefulness of the method beyond doubt.

When considering the factors for the production of prints to be developed simultaneously with the progress of exposure, the following points were borne in mind: —

(1) The spreading action of the light and its luminosity.
(2) The intensity of the lens.
(3) Density and gradations of the negative.
(4) Speed of the bromide paper.
(5) Constituents of the developer.

Although all these factors have a bearing on the result, it was found, after a series of trial and error experiments, that for practical purposes each compensated the other.

The procedure in brief is as follows: The image is first focused in the ordinary way on to the enlarging easel. The dry bromide paper is then soaked in a small quantity of the developer and affixed wet to the required place on the easel, the yellow cap being, of course, on the lens.

No exposure calculations are at all necessary on trial slips of paper. The lens is simply uncapped, and it will be observed that the darkening of the shadows in the picture (*i.e.*, the clear glass portions of the negative) commences at once.

Theoretically, with a negative of perfect graduations, representing the entire range of possible photographic tones, the development should be complete when the projected negative image, plus the developed positive image, presents a perfectly even tone, and no image at all is visible. Practically this is never the case unless considerable over-development (and over-exposure) occurs.

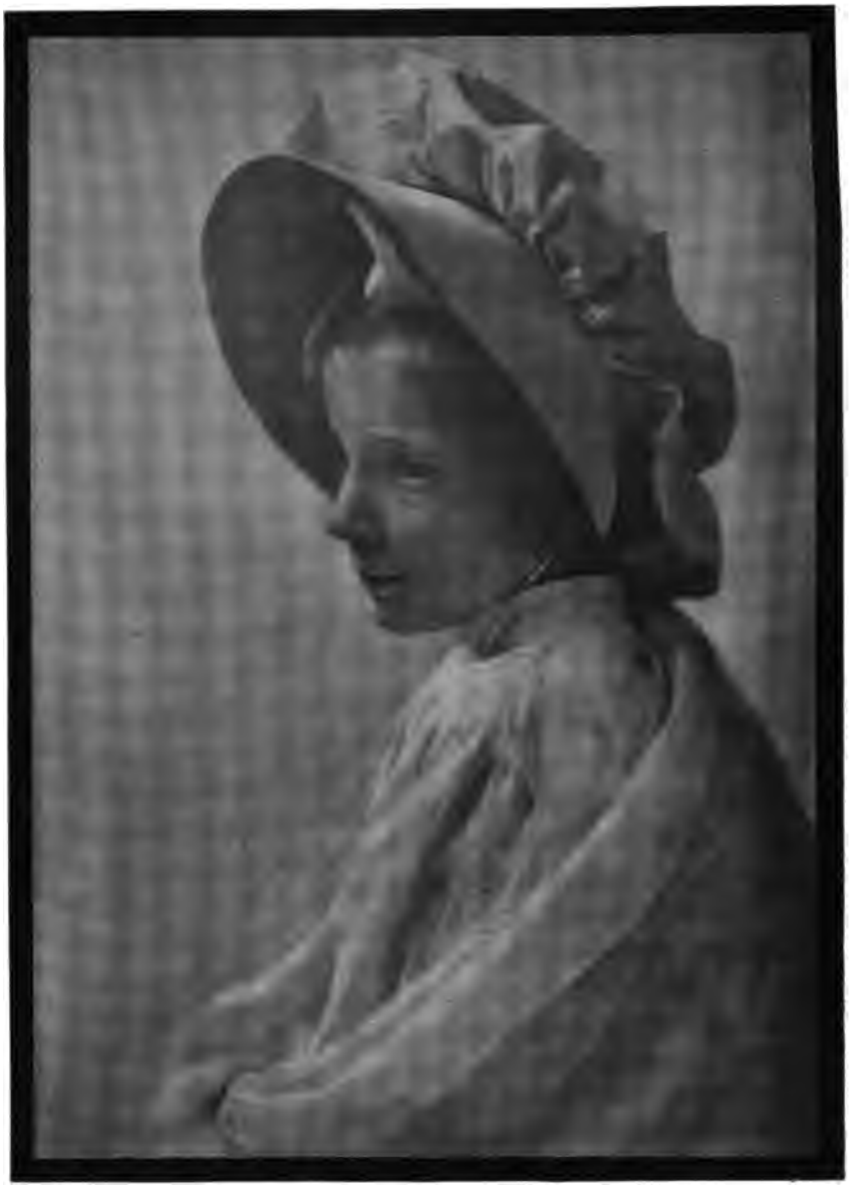
With a normal negative, the negative image remains visible even when the positive image is fully developed.

When the print is fully developed, it is removed from the easel, and fixed and washed as usual. The resulting picture will show no difference from a correctly timed exposure on dry paper that receives subsequent and careful development in a separate solution.

Reserving for a further article an account of experiments with practically every well-known developer, at present employed for bromide prints, the following formula will be found to work perfectly for all enlarging that is likely to be attempted by the average worker. It is the formula that, in my hands, has given least evidences of staining and the best results so far as purity of tone is concerned: —

A.—	Hydrochinon	180 grains
	Metol	140 grains
	Sodium sulphite	3 ounces
	Potassium bromide	30 grains
	Water to	20 ounces
B.—	Sodium carbonate	3 ounces
	Water to	20 ounces

Average temperature, 60° F. For use, take 2 ounces A, 2 ounces B, and 1 ounce pure glycerine.



MARJORIE
C. L. PECK, BUFFALO
Buffalo Camera Club

My experiments have been conducted with various samples of the best-known makes of bromide paper on the market, and although distinct differences in speed have existed, the only effect this has had has been to alter the entire time for the coincident exposure and development. The cumulative action of the light passing through the negative decides the time of development, provided the paper is kept wet with developer during the whole time of exposure. The presence of the glycerine in the developer assists in this respect.

The dry piece of bromide paper on which the enlargement is to be made is placed in an ordinary developing dish, and the mixed developer poured over it. Five ounces of this developer can be used thus for a 12 x 15 print, and, moreover, used over and over again without spoiling. If more than one print is to be made, many pieces of paper can be soaked at one time, and kept under cover until wanted.

To aid the covering of the print with developer, a camel's-hair mop is employed — better still, a fairly large soft fitch-brush, as used for the oil and bromoil processes. This is very convenient to handle, and can be used for covering the paper with developer in this dish, and for occasionally brushing the developer over the print on the easel during exposure.

The question of exposure, therefore, does not really exist. The paper, saturated with the developer, is placed on the enlarging board or easel in the required position, — no pins are necessary; it simply sticks there long enough for the exposure. It is smoothed over with the hand to put it quite flat and then gently brushed over again with the developer, so that its entire surface is perfectly wet. The yellow glass cap of the lens is then removed. The print begins to develop at once, and continues until done. That is all.

A comparison of times shows that the increase in time required for simultaneous development and exposure is very little more than is necessary for the exposure on the dry paper for subsequent development. — *Amateur Photographer and Photographic News.*

[We have tried this process with most satisfactory results. The developer used was rodinal, a very strong solution, 1 to 8, without glycerine, being used. The print was mopped with a tuft of cotton wet with the developer during exposure, to keep the surface wet, and to bring up parts requiring extra exposure. The results seemed to show better quality and more harmonious prints from hard negatives than could be obtained from the usual process. An acid fixing bath or hardening in formalin is advisable to avoid blisters. — F. R. FRAPRIE.]

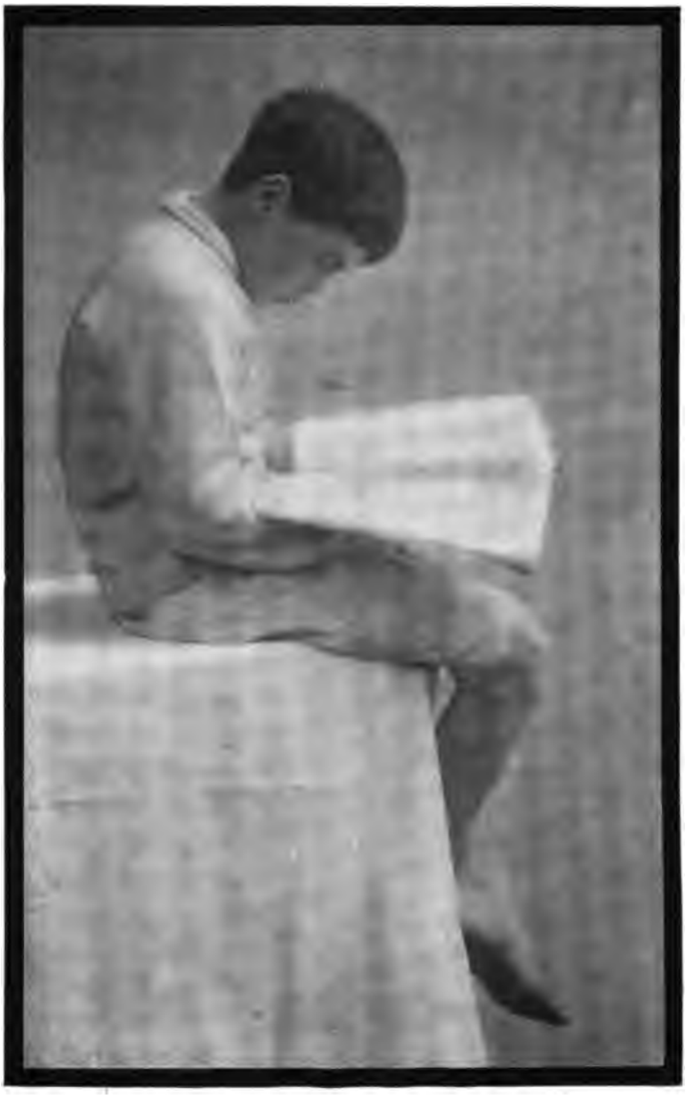
THE LINE OF BEAUTY

ARTHUR HAMMOND

IN dealing with the problem of composition, the two chief elements to be considered are line and mass. By line is meant either actual lines, outlines of the subject or edges of tone, or the general sweep or direction of the subject considered merely as a pattern or design. There need not always be an actual line, the eye will often instinctively connect two prominent objects and create a line between them.

Almost any picture in which there is any attempt at composition can be analyzed and its leading lines reduced to a simple diagram. And this is the test for good line composition. If in this diagram of the leading lines, the lines by themselves are of a pleasing shape or form a pleasing and satisfactory design, you may be pretty sure that from the point of view of line composition the picture is successful.

In addition to forming a pleasing pattern, the lines must form a design which appears to properly fit into the picture space, that is to say, the diagram must appear to be complete in itself, the lines must not lead the eye out of the picture, but should always tend to keep the attention well within the frame or edges of the picture. The line of beauty, as a rule, fulfils this condition admirably.



THE STORY BOOK (Figure 1)
ARTHUR HAMMOND, BOSTON

It is, of course, to some extent a matter of taste or personal feeling as to whether the pattern is or is not a pleasing one. What some might consider pleasing might not appear so to others, but there are certain universally recognized facts concerning lines which the student of composition ought to be familiar with.

There is a lot of beauty in the mere lines of a picture, arrangements of lines bounded by the frame or edges of the picture, and some arrangements are more pleasing than others. A curved line has more possibilities of beauty than a straight line, there is more variety in a curve, more mystery and elusiveness, more possibility of interest than in a straight line, and in the line of beauty (by which is implied an S-shaped curve) we get a large measure of gracefulness, interest, and variety. The line of beauty occurs everywhere in nature; we see it in hills and valleys, in flowers and trees, and in the human form we find it in most charming variety.

Straight is the line of duty,
Curved is the line of beauty.

Thus it will be seen that if we want beauty rather than strength in a picture, we should aim at getting curved lines which suggest beauty rather than straight lines and angles which suggest strength.

The three pictures here reproduced are studies in curved lines, and when analyzed or reduced to line diagrams they may be represented by the following sketches: —

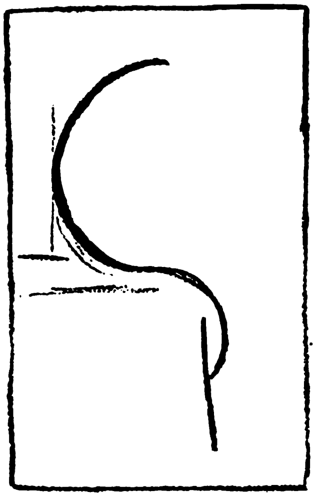


DIAGRAM 1

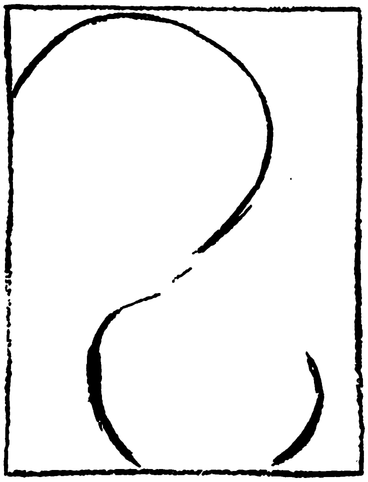


DIAGRAM 2

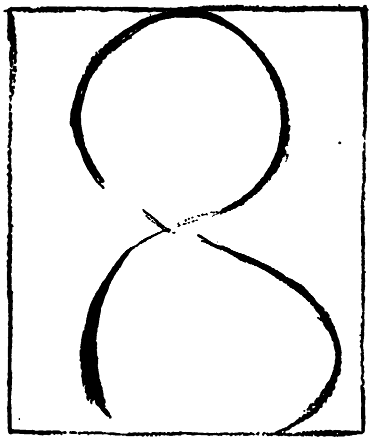
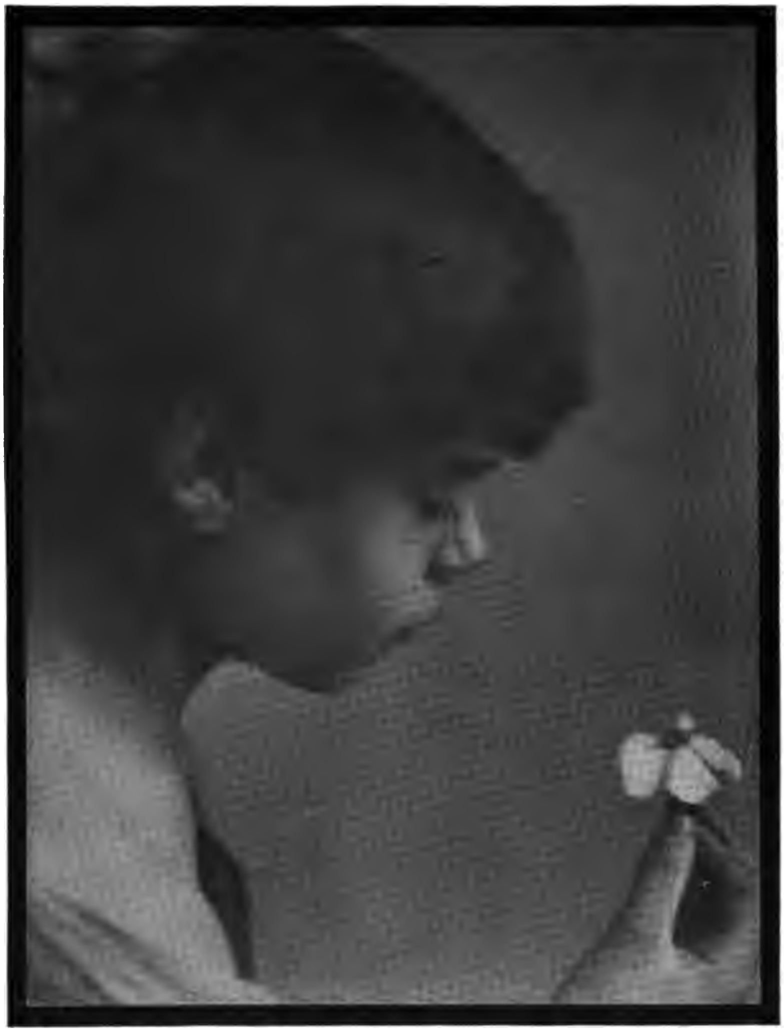


DIAGRAM 3

In the "Story Book" picture (Figure 1, diagram 1) we have perhaps the simplest curve of the three. The leading lines of this picture form an elongated letter S.

In "Spring" we have a very similar curve, but reversed, while in the "St. John" picture we can trace both these curves and the leading lines here form a figure 8.

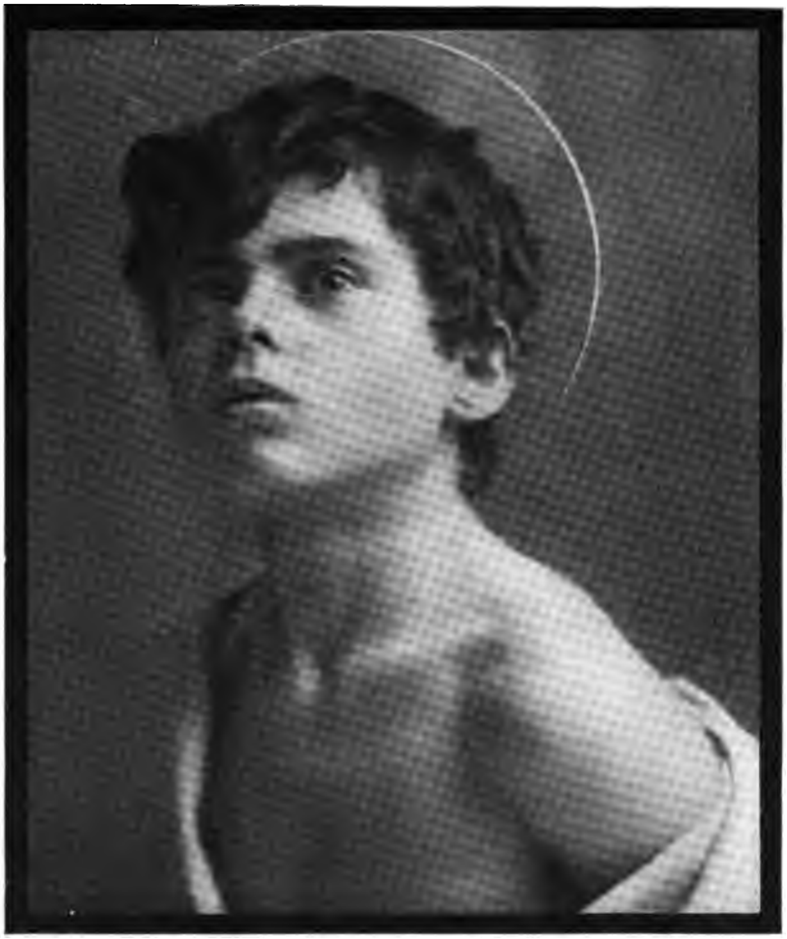
A picture will appeal to different people in different ways. To an artist it will make its primary appeal as pure design, to others as a representation. The "Story Book" picture, for instance, would be noticed by an artist as being an attempt to introduce the line of beauty. He would appreciate the curves. but would condemn the hard rectangular patch in the lower left-hand corner. He



SPRING (Figure 2) ARTHUR HAMMOND, BOSTON

would not care in the least who the boy might be or what book he is reading; to him he would be merely a boy — any boy — reading any story book. But, on the other hand, many people would be attracted by the representation, the boy would make an appeal to their human nature. Those who did not know the boy might say, "What a nice little boy, I wonder who he is?" while his own friends and acquaintances on seeing the picture would probably remark — "Oh! there's Lea Evans, he must have had his hair cut that day." The representation is what appeals to them, not the manner of its presentment.

It is just the arrangement of the subject and the manner of its presentment that differentiates between a picture and a mere record. Beauty is largely a matter of arrangement, and the art aspirant in photography should endeavor to create beauty through the study and practice of composition. A few principles will help him to think pictorially. He will discover that certain rules will help him on his way, but that every rule is expansive and wonderfully adaptable to his personality, his needs, and his ideas.



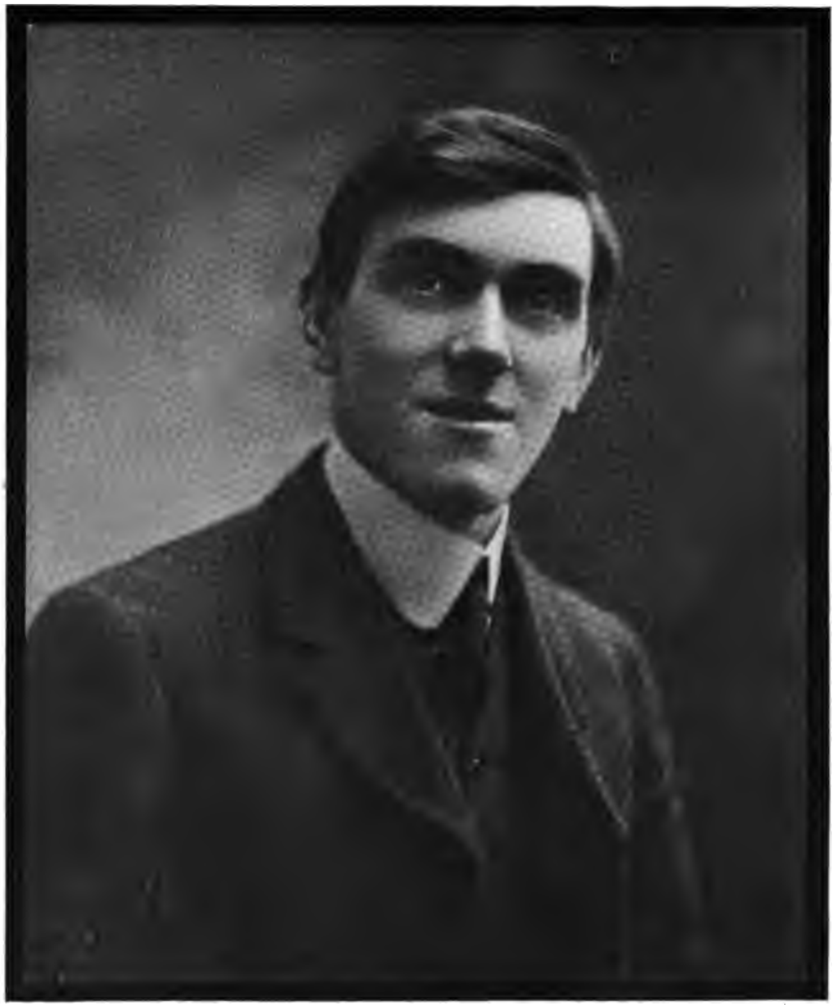
ST. JOHN (Figure 3) ARTHUR HAMMOND, BOSTON

The principles so far referred to in this series of short essays on composition may be summed up as follows: —

We noticed last time that a triangular arrangement of the figure conveys a feeling of satisfying solidity and firmness. That is so, and it is just as well to be aware of that fact, but there is no need to make every figure study a triangle.

This time we see the application of the line of beauty in a figure study, but there are occasions on which there will be no necessity for us to apply this knowledge. These principles are given simply as a help in picture making, and in analyzing pictures, so that we may understand why a certain arrangement pleases us and why we have an instinctive feeling that the composition is good.

Blue Metallic Stains on Plates. — These stains are due either to stale plates or stale developing solution. They can be removed by soaking the negative for a couple of minutes in a solution of potassium ferricyanide, 5 grains; water, 1 or 2 ounces; and then rinsing it well in an ordinary fixing bath; then washing and drying in the usual way.

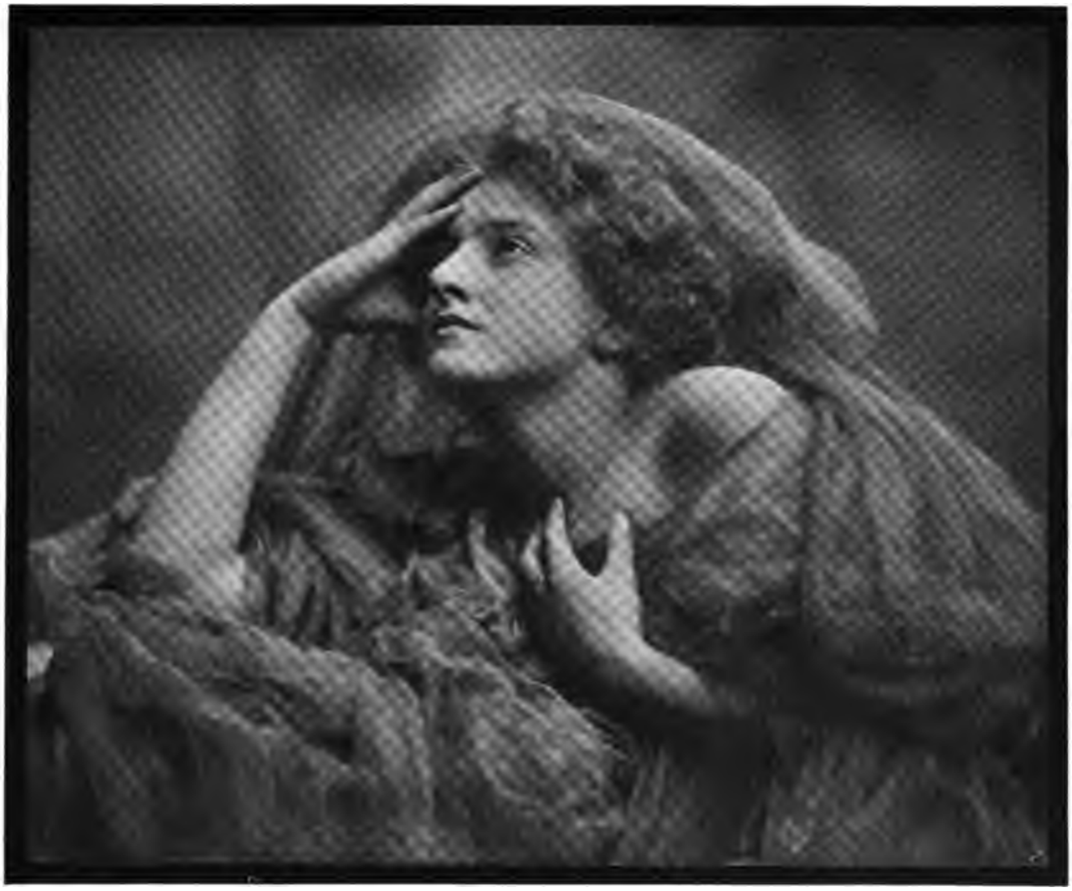


SELF PORTRAIT ELWIN NEAME, LONDON

ELWIN NEAME

CHAS. E. DAWSON

THERE are not in London more than about twenty illustrated publications, weekly and monthly, of any great importance. And of these twenty, twelve depend almost entirely upon the pictures of popular plays and players for their circulation. To an impartial critic, it would seem that the theatrical press agent has us in his grip, and that the theatrical manager is the reigning autocrat of London. In retaliation, society folk, titled nonentities, have entered the theater, and may any night be seen strutting around, playing thinking parts with the other supers at a salary of a guinea a week. King Edward goes to as many theaters as he can crowd into his busy working hours, and the idolatry of stage folk is a craze which thrives by what it feeds on. Hence the showgirl bulks so big among the pictures in the papers. Every year, more and better pictures have been used,



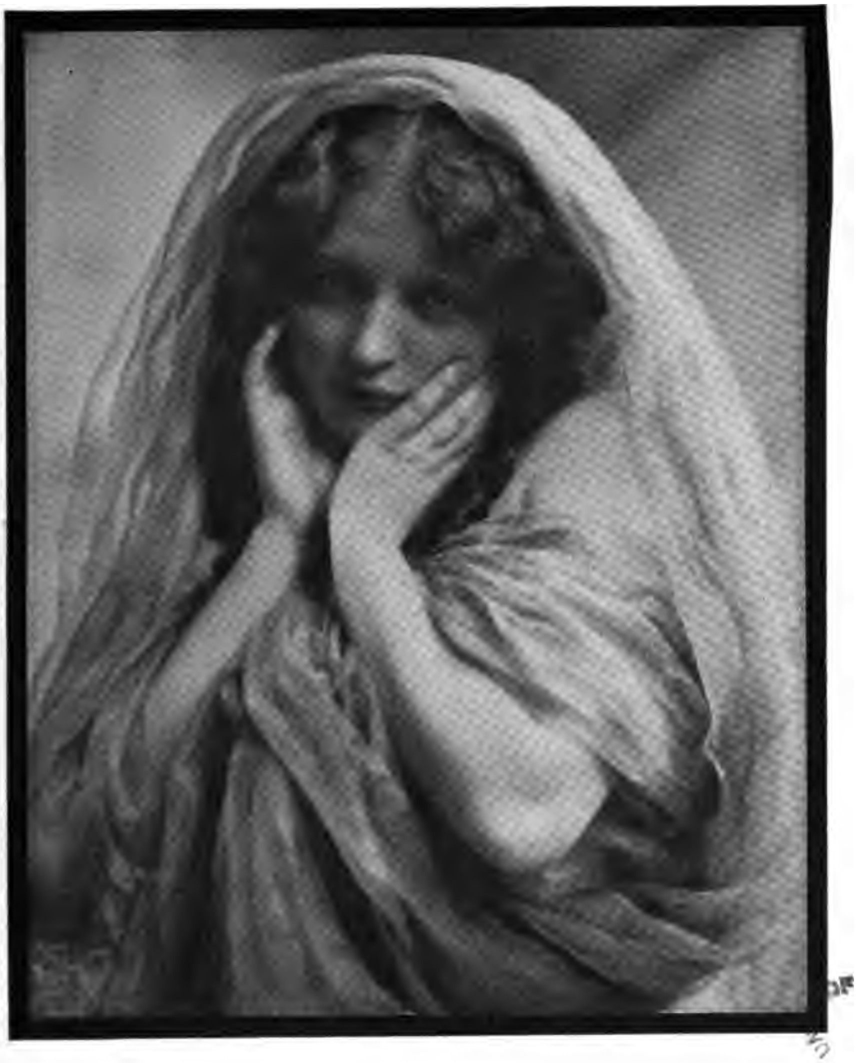
MISS IVY CLOSE — ELWIN NEAME, LONDON

(Winner of the *Daily Mirror* Beauty Competition)

but few of them ever had any merits to speak of, except when the sitter happened to combine the rare knack of posing with a good photographic physique. The three classes of pictures most in request are the old-style slap-stick back-talk vaudeville comedian, the tailor's style-book matinée hero, and the showgirl.

Since the "Belle of New York" came to town the power of the showgirl has been in the ascendant, and she now influences the destinies of playhouse and press to a mighty degree. The usual trade photographer had been dallying with her features for quite a while, and with little distinction for any one concerned, when about two years ago, a few of the theater-ridden papers blossomed forth with big whole-page plates of otherwise quite ordinary chorus girls; but, in every case, the modiste's machinations, the corset and the tailor-made suit, gave place to drapery that had evidently been arranged with a keen sense of composition and an eye to the essentials of a picture. The mechanical "Odol" smile of the musical-comedy girl was superseded by a somewhat pensive, rather than acrobatic expression. One paper after another began to print bigger pictures of stage stars in the making, until very nearly all the worth-while publications were following suit.

After a time one began to recognize these prints as something different, to watch out for them, and eventually to be conscious of a modest signature under them,— the quite unfamiliar name



TEARS
ELWIN NEAME, LONDON

of Elwin Neame. His advent, though swift, was silent. A new journalist of equal ability would have been interviewed and talked about till his name became a household word. But the British public in the mass can scarcely tell the difference between one work of art and another! and when it happens to be a photograph, the general impression is that "it's only done by machinery."

After Neame had been showering the presentments of showgirls, with a sprinkling of leading actresses, over the illustrated papers pretty liberally for a year, the *Daily Mirror*, Lord Northcliffe's halfpenny illustrated newspaper, suddenly broke out with the beauty competition craze, and engaged well-known artists to act as judges, who were nearly snowed-up by the avalanche of portraits unloosed upon them by the plainest and vainest women in the kingdom.

The outlook was not promising for the editor's pronouncement of "discovering and determining the loveliest woman in the world." The situation was suddenly saved by the arrival of Neame, who selected from the mass of prints the portrait of Miss Lilian Ivy Close,— the girl who was destined to be the winner, and to be for a season the most boosted young person in the British Isles. Neame made a series of splendid studies of Miss Close and all the selling force of Lord Northcliffe's block of publications was brought to bear upon the deluge of photogravures, picture post-cards, etc., of the winner that emanated from his house. Upwards of half a million prints of Neame's portrait of the fair Lilian were sold. Since then Neame has been the most sought-after picture-portrait maker in London. The great lights of the theatrical constellation formed queues in their hired buzz-wagons, awaiting their chance to be photographed. A glance through a recent portfolio of his work reveals among his other victims the names of: Her Grace the Marchioness of Townsend, Ada Reeve, Pauline Chase, Maudie Darrell, Daisy Jerome, Valli Valli, Lillian Braithwaite, Winifred Emery, and practically all the beauty competition winners in the London papers during the last two years. And he achieved success. The various photographic societies hung him for a few shows, until they gradually came to the conclusion that he was becoming too popular to be artistic.

Like most of those who knew his work, I had imagined him to be a man of middle age with a good head for business and an excellent staff of operators and retouchers, until I moved to my studio at Baron's Court, formerly occupied by Thos. R. Dallmeyer, F.R.P.S., of Dallmeyer lens fame. This district is infested with studios, the smell of the paint-rag pervades the air. Artist-photographer E. O. Hoppé lived a few doors away, opposite the little old studio of Sir Philip Burne-Jones, Bart.; and facing him was the ultra-modern studio of my present victim, Neame. H. Snowden Ward came down to see to it that we got acquainted, and we have compared notes and things and criticized each other's masterpieces ever since.

It is not unusual for sitters to say, "But I must see Mr. Neame; I want him to photograph me." "I am Elwin Neame," is his stock reply, and the average comment is, "Oh, I'm so sorry; I thought you were the boy!" As a matter of fact, Neame is the same age as Aubrey Beardsley when at his zenith,— twenty-three. The trouble is that he doesn't look it. He was studying at the Bristol School of Art when he was only twelve, and after working for four years and winning a medal for black and white, he distressed the professors by forsaking the brush for the camera. After doing light chores in the studio of a local photographer, he scored his first success in his present line. Miss Zena Dare, as familiar to picture post-card collectors as to the devotees of musical comedy, was playing in Bristol, and Neame understudied the importunate widow with such success that at last she consented to give him a sitting. Fortunately, the lady liked the picture, and when published, a leading London photographic house lost no time in securing the young operator at a tempting salary. Af er learning the tricks of the trade as practised in the West End at the age of twenty, he started a studio on his own account. Neame admits that a study of Greuze made during his art-student days inspired him with the determination to specialize in the arrangement of drapery, and to render the subtle tones of folds of semi-transparent tissue over flesh.

MISS GERTRUDE [illegible]
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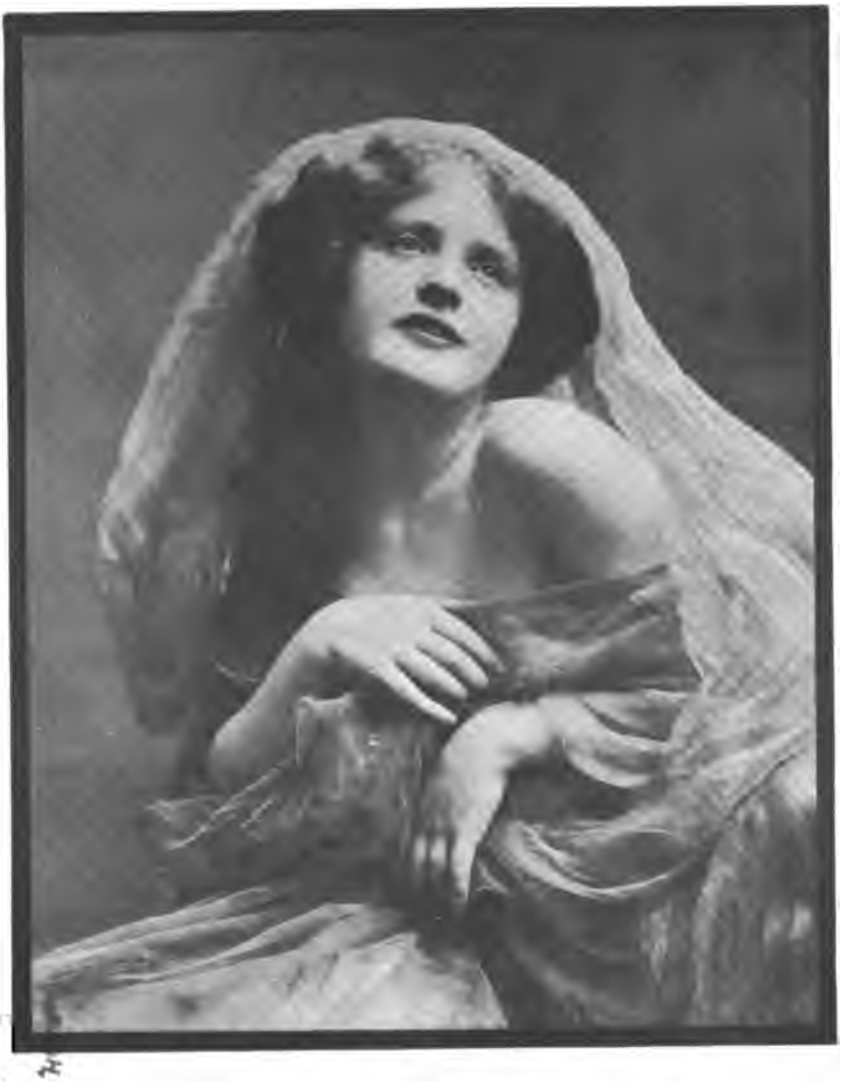
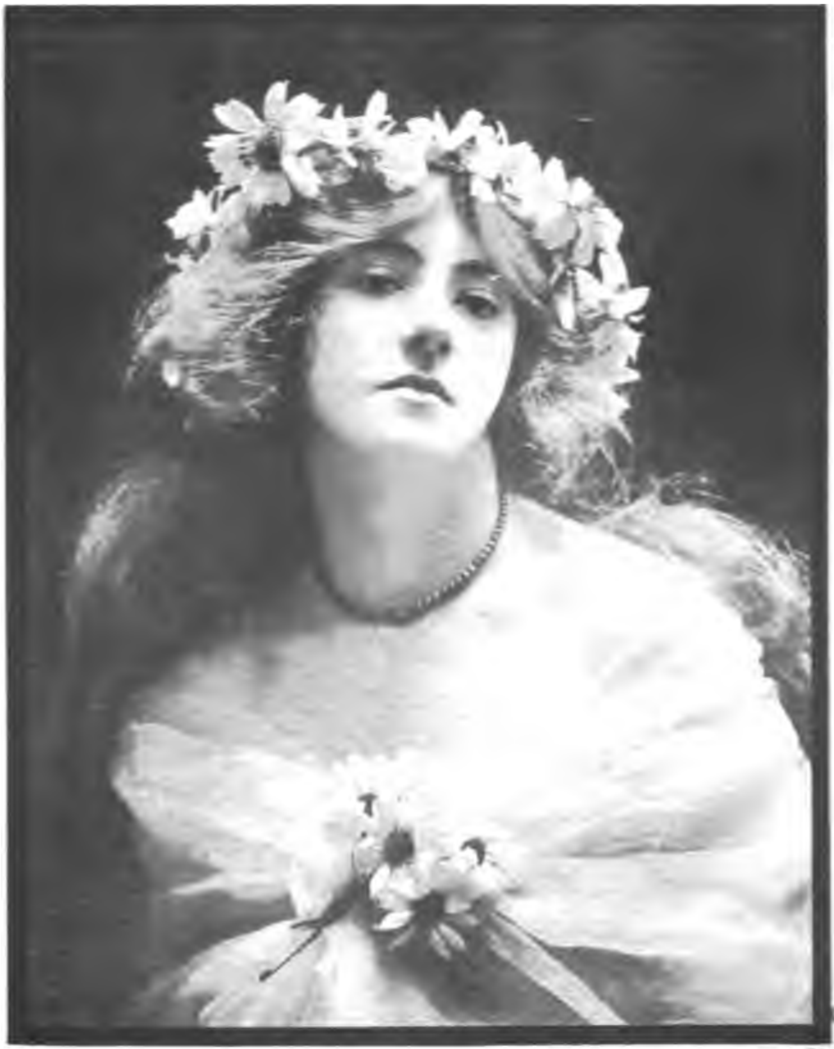


UNIV.

A STUDY
ELWIN NEAME, LONDON



OF MIC

MARGUERITE
ELWIN NEAME, LONDON

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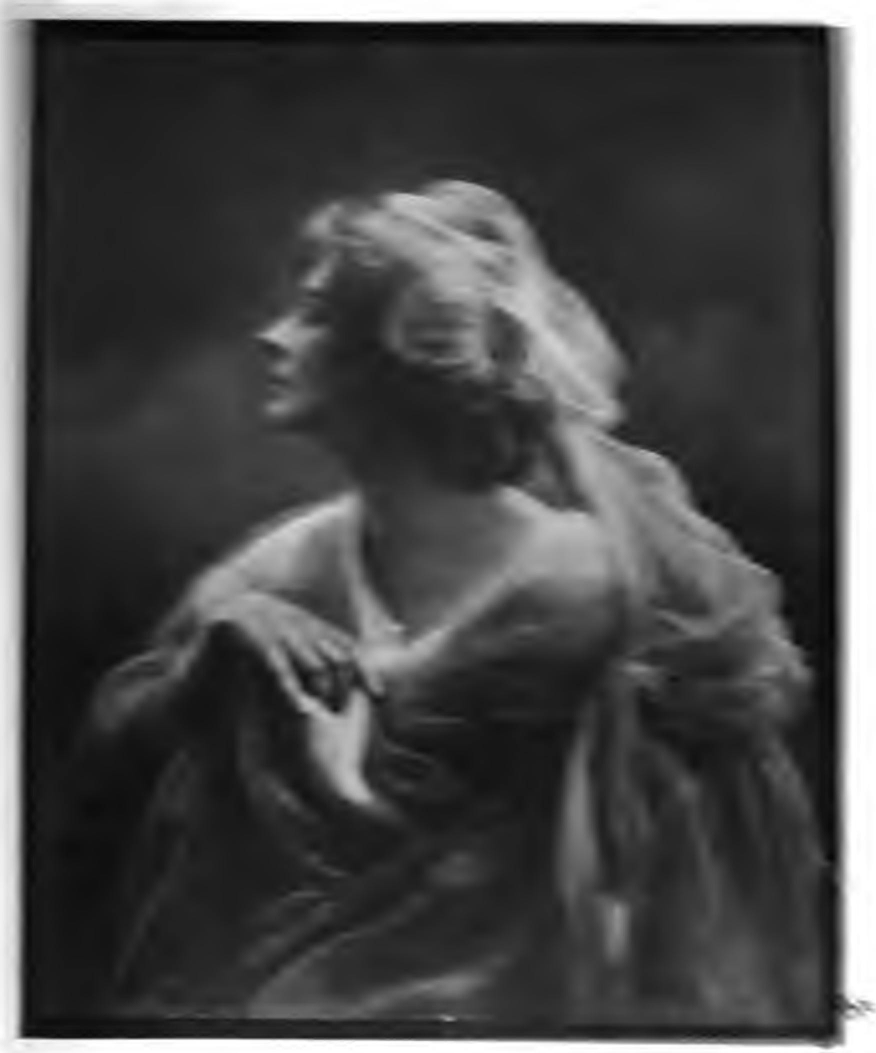


MISS SYBIL THORNDIKE
ELWIN NEAME, LONDON

The outsider usually imagines Neame to be a sort of dusky potentate,— an abandoned voluptuary, surrounded by a "dream of fair women," in a setting of Oriental splendor. But as the outsider is invariably unimaginative, and nearly always wrong, it is not surprising that his studio is about the barest and plainest photographic workshop in London, and to see young Neame at work, equipped with a mouthful of pins and an armful of mauve chiffon, is a vision that would dispel the most romantic illusions, and inspire the greatest respect by the swiftness and sureness of his manipulation.

He starts at the end of the length of material, and winds it around the model, at each winding a sort of half turn — half flick — makes it fall loosely and gracefully into just the folds he wanted. In about fifteen seconds the victim is as securely enveloped (in chiffon and pins) as any fly ever trapped by spider, but incidentally head and bust are posed to fulfil exactly the lighting and composition requirements of the preconceived picture. I don't know if Neame claims to be a portraitist; I rather think his prime aim is to make a pleasing picture, and that if it happens to resemble the sitter — so much the better. .

He is a cheerful faker, and never lost any sleep worrying, like the wealthy amateur, over the "art for art's sake" proposition. What "Farmer's reducer," hypo and ferricyanide of potash, won't do on a negative can be done by varnishing and working on both sides of the negative with a sharp retouching knife. His methods do not seem to differ from those of the other leading professionals, but his results are fresh and new and virile. He has learned not a little from Greuze, Correggio, and Cosway, and has evolved a style of his own. He exploits the beauty of finely flowing, diaphanous drapery to its limit; and if his love for the superficial prettiness of the eternal feminine is all-absorbing just now,— why! that is his concern.

The youngest and most successful professional photographer in London, he is youthful enough to develop a sense of character, and to grow from strength to strength. Neame is not the least bit spoiled by his good fortune; and when he wearies, as his artistic spirit is bound to do, of his present vogue, we may expect great things of him in other directions. Anyway, he has the future well before him.

REMOVING DEVELOPMENT STAINS. — The long development of under-exposed plates or films, so frequent in winter time, often causes stains to appear on the negatives; often the stains are merely yellow or brown, and due to the action of the developer on the gelatine film, while occasionally they are dichroic, and the colors appear green by reflected light, if the plates are examined from the glass side. When the stains are deep yellow and very pronounced, and green by reflected light, place the plates or films in a weak solution of potassium ferricyanide, about ten grains to the ounce of water, until the stains are removed. The plates should then be thoroughly washed, and afterwards put into a fixing bath for a few minutes, and after a further thorough washing they can be intensified (if necessary) with mercury and ammonia.

The stains caused merely by oxidation, and due to long development, can frequently be removed in a much simpler manner, by soaking the plates in the following solution: —

Water	10 ounces
Alum	2 ounces
Citric acid	1 ounce

Another means of removing slight stains is to rub them over with a very weak solution of permanganate of potash, afterwards washing the negative, and immersing it in a five per cent solution of sodium bisulphite for a minute.

Some yellow stains are entirely superficial, and due to the plates themselves; these may, as a rule, be removed by friction — rubbing the dry film over with a wad of cotton wool moistened with methylated spirits. If this fails, then the ferricyanide treatment first described should be resorted to.

CHAFFINCH FEEDING YOUNG JOHN WILLIAMSON

THE PHOTOGRAPHY OF WILD BIRDS

JOHN WILLIAMSON

AS is the nature of the children of men, I have tried many sports in the endeavor to be less miserable. My thrills also have been as other men's — after a straight long low golfing drive, lifting a trout with fly, the dead kill in midair of a wheeling bird, and other things, mostly cruel. But the greatest thrill of all has been experienced in procuring sun pictures of wild birds feeding their young in the wild. Besides, it is pleasure without pain.

There is no short cut to successful wild-bird photography. It means hard work a-plenty, allied to Job-like patience, but the indescribable charm attached to it makes it indeed a labor of love, satisfying some of the best instincts of the human heart. I pin my faith to a wide-angle lens of good quality, a half plate stand camera, backed orthochromatic special sensitive plates, and pyro-soda.

If you asked for three hints I would give patience each time. You could add to patience silence — for some birds, you would imagine, heard the footfall of an ant yards away. And to silence might be joined enthusiasm; but the greatest of all is patience. Have your camera well covered up in mimicry of surroundings. For yourself, you can lie in an old bag such as you find about a farm. It is remarkable how innocent an old bag looks, and it has been proved by experience to be very suitable for bird's-nest photography. Connect to your camera with rubber tubing, or if the shutter allows, use thread. Take plenty of photographs. Some of them won't come out properly. Take the nest partially built, fully built, with eggs, with young, with old birds feeding, and take the broken down habitation when the youngsters have flown. Take it near at hand and take it at a distance, showing as much as possible of the surroundings. Don't push the nest down, so that you can photograph the eggs; don't touch either eggs or nest; don't cut interfering branches; tie them back out of the way. Leave the nest natural, not as bare as Sahara; and when you have finished unloosen your cord and let everything return to its natural state. If the parent birds refuse to return to the nest while you are about, don't stay long. It is the light of scientific truth you wish to portray, not a nest tilted at an unnatural angle or foreign to its surroundings. Make friends with the game-

GULLS ON LOCH FYNE, CLYDE JOHN WILLIAMSON

keeper, woodmen, etc., and go nowhere without civilly asking permission. Take the gamekeeper's photograph; don't forget wife and bairns, and you are all right. Use field-glasses and an exposure meter; the last will save you many plates. Don't fake your negatives; spotting pinholes is absolutely the only thing you should do. If you have a few nests to choose from, photograph those which show distinctive natural surroundings, giving the flora, for example, at date of photograph.

SOLAN GEESE, BASS ROCK JOHN WILLIAMSON

YOUNG HOUSE MARTINS JOHN WILLIAMSON

The marvelous rapidity of bird movement is one of the lessons you learn in bird photography. Look at the photograph of flying gulls. This was taken from the side of a ship on the Firth of Clyde near Glasgow in good light. I arranged with the steward to throw out the crumbs from the table. With a rapid lens, a special sensitive plate, and a shutter, which I set for 1-750th of a second, I lay in wait. Even at this speed you notice there is movement here and there; the ornithological value is considerable. There are four different kinds of gulls here, about eighteen birds in all, and a wealth of information touching the *how* of flying. I would sooner have this picture than all these birds stuffed and hung up in a glass case. If our boys were brought up on the photography of wild birds, there would be less occasion to bemoan the cruelty that seems unconsciously to be alliid to boyhood.

Would you look at the pictures of wild chaffinches, feeding their young. Could any picture — if you will pardon the egotism — be more satisfying? You have atmosphere, you have harmony, you have the fulfilment of parental duties, and you have youthful joy, luxuriating in a healthy appetite. Of course it is not a studio picture, — the white spots are daisy flowers out of focus, and

YOUNG SWALLOWS JOHN WILLIAMSON

the flowering branch of wild apple is hard; but in snap work of this kind it is apparent that if you waited for a cloud to tone down the brilliant light, you would get under-exposure. These photos were taken on the banks of Loch Lomond, of which we Scotsmen are all proud, and I rose about half past four in the morning for the work. I have given a speed of about 1-25th of a second for a bird feeding its young, and on developing the plate found the young, but no parent; *verb. sap.*

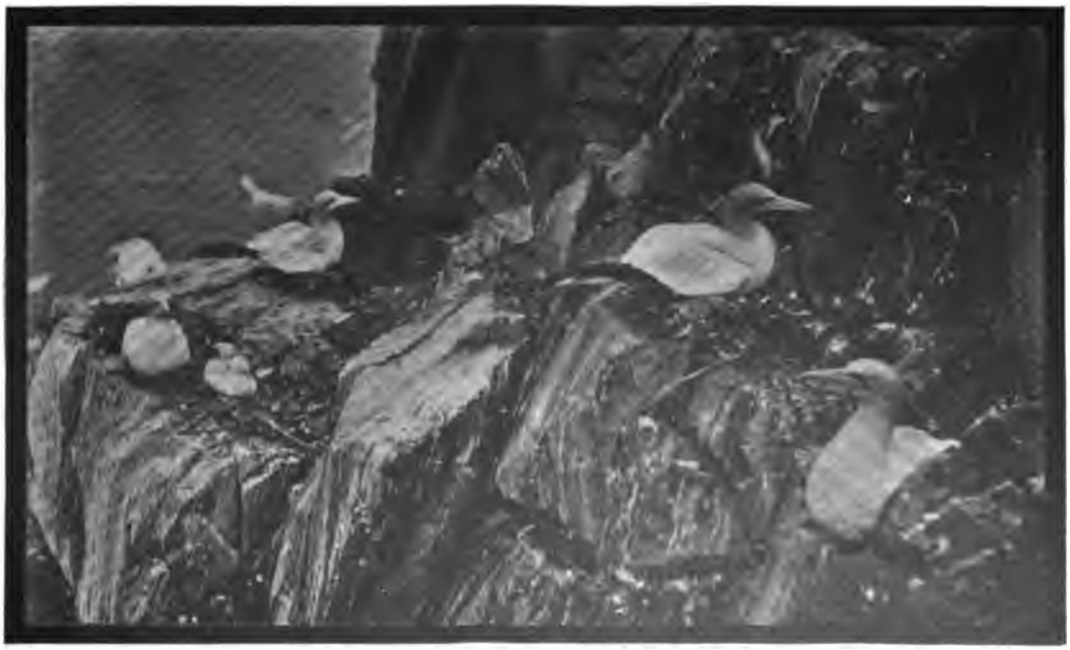
A field of short grass on a declining plane makes an ideal background where you can manage it. This has been possible to some extent in the photo of the young swallows.

The solan geese photographs were obtained on the face of the cliffs of the Bass Rock, which is an anxious business if you are not *very* enthusiastic. Compared with the birds, nest photography is simplicity itself. Your subject is *not* quicksilver.

Stereoscopic work, I believe, has a great future; it has not quite arrived in Scotland for ornithological work. Color work I have tried, but only for still life. A thrush's nest, with blue eggs in the midst of golden whin, made a very effective picture. You have thus three methods you can apply to nest photography, with absolutely satisfactory results.

Have you ever compared the work of brush and pencil in bird studies with the pictures produced by the camera? How stiff, how flat, how crude the hand workers appear. Perhaps in no subject is the superiority of the lens so apparent. One cannot but admire especially the miraculous detail of a bird's nest as shown by the lens.

Ornithological photography grows on you. During the winter months you take out your negatives and enlarge here and there, and linger lovingly on the special effort pictures. In the spring the voice of she-who-must-be-obeyed calls more insistently to you than to any other photographer, and with your bundle on your shoulder you train and tramp into the secret places of the wild, and the world unnatural of men and money making "fades far away, dissolves," and is quite forgot.



SOLAN GEESE AND YOUNG ON CLIFFS, BASS ROCK JOHN WILLIAMSON

BIRCHES AND SNOW OTTO SCHARF, CREFELD

German Professional Section, Dresden Exposition

USING A SMALL CAMERA

BURTON H. ALLBEE

PERHAPS the controversy between advocates of large and small cameras will never cease. Both will always have their defenders, and both will always be used. Yet even though this is true, no reason exists why small cameras should not replace large ones under certain conditions, or why the man who photographs for pleasure alone should be burdened with an apparatus heavy enough to require a truck for transportation when a smaller one will do quite as well.

For some purposes large cameras still seem necessary, even though the small instrument has reached a degree of perfection in negative making which frequently seems almost incredible. Sometimes large negatives direct from the object are required, and the enlarging processes have not yet been perfected to the degree required to make perfect reproductions from small negatives, consequently the huge outfit must be carried, and whatever pleasure might accrue from the trip is greatly lessened or wholly destroyed.

A certain amateur of the writer's acquaintance worked for many years with an 8 x 10 outfit. He is an excellent workman and has won numerous prizes in various competitions. For a long time his friends argued with him to abandon his heavy outfit, particularly when out on photographic trips. He quite as steadily refused, producing his beautiful 8 x 10 plates in comparison with the small plates or films made by the others as indubitable evidence that his contentions were correct. And frequently the party who went with him were forced to admit that he was right to a certain extent.

One day when going on a long trip something happened to his large camera, and he was forced to take a small one. The freedom from hard work to which he had been accustomed and the resulting negatives, which were all good, convinced him that his friends' arguments were correct. Now the large outfit seldom goes into the field. It is used only at home, for portrait making, genre pictures, or something near by that does away with the necessity for carrying it.

This gentleman's experience has been duplicated many times, and each time the small camera gains a friend. With the perfection of the modern small apparatus, including anastigmat lenses, there is no apparent use for the large camera, excepting for some special occasion. On the contrary, it is becoming more and more obsolete and will shortly be relegated to galleries for the benefit of professionals and others who for one reason or another must have a large apparatus.

In selecting the small camera for ordinary use one should be guided by the purpose for which it is required. For long trips nothing is better than the roll film kodaks. They combine efficiency with portability, and the films are so light and so compact that it is almost no trouble to carry them. With a developing tank the work of development is simplified and the bother is so reduced, or so nearly left out, that photography becomes a pleasure. This applies to all the roll film kodaks, or kindred cameras using the same size films. The one who desires to enjoy his photography should experiment with these cameras. He will be surprised at their efficiency and the ease with which they can be manipulated.

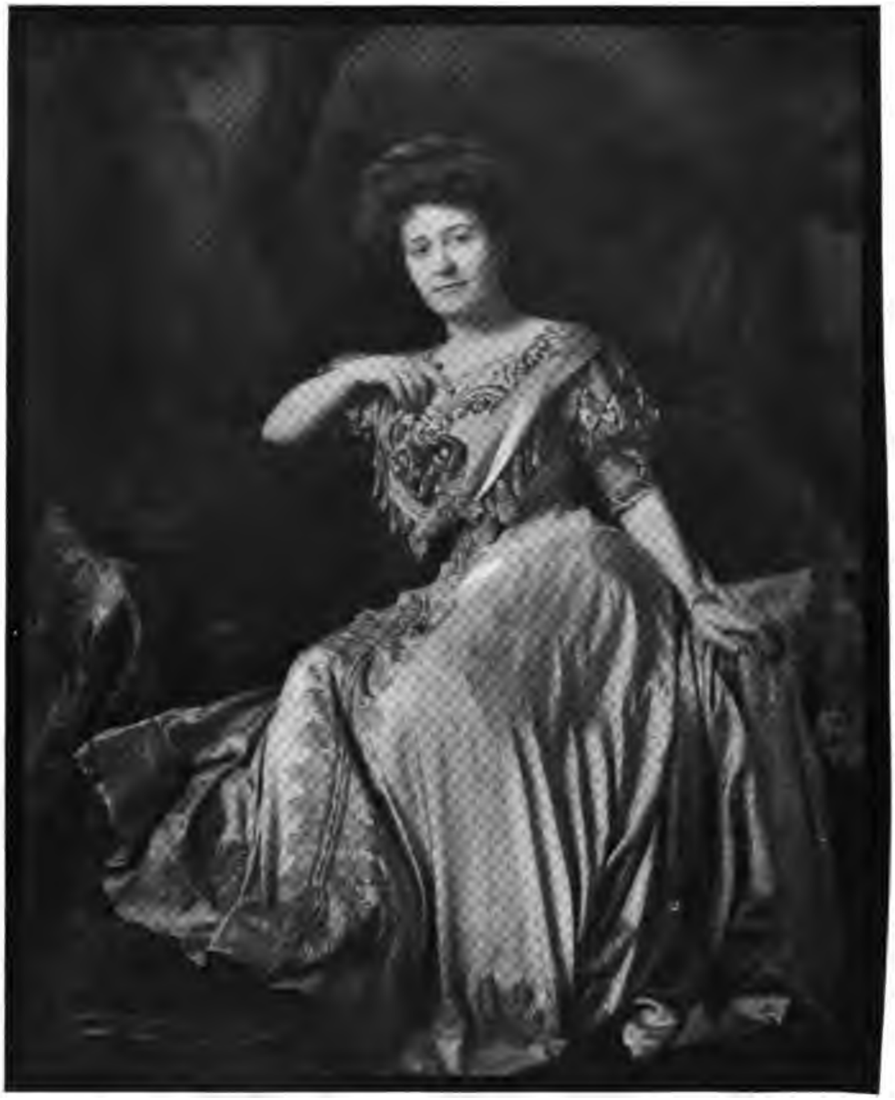
When considering size one should have regard for the purpose for which the pictures are wanted. The popular 4 x 5 is always desirable. The post-card size, 3¼ x 5½, is a good size. The direct prints from these negatives make good pictures for either mounting or preserving in an album. If post-card views are wanted, these negatives are the exact size required.

Perhaps the most desirable of all is the 3¼ x 4¼, or the quarter plate of European manufacturers. The proportions of this size are more nearly correct, thus making a more symmetrical picture than either of the other sizes. The prints are large enough for preservation. The negatives are the correct size for lantern slides, and by matting the card good post-cards can be made. A smaller kodak has been brought out recently, or rather, an improved form of an older make, the popular No. 1 A, which now has rapid rectilinear lens and automatic shutter, and thus all the elements of larger and more expensive cameras in an extremely condensed form. The size of the film is 2½ x 4¼, a little odd, yet possessing artistic possibilities sufficient to make it attractive and supplying good prints for preservation, or enabling the photographer to utilize his negatives satisfactorily in other ways. Any of these cameras can be fitted with anastigmat lenses and the highest grade of speed shutters, placing them upon a plane of efficiency as high as the more expensive large instruments.

Several makes of 4 x 5 plate cameras are available, fitted with the highest grade lenses and speed shutters, making an outfit compact, yet very efficient, and allowing focusing and composition on the ground glass. Many workers cannot give up this operation, which seems necessary to them, and they find in these outfits a satisfactory solution of the problem of portability and efficiency. Fitted with anastigmat lenses and speed shutters the efficiency of the outfit is quite as high as that of the larger and more expensive ones which have been used by serious workers so long.

For extra speed work cameras of the reflecting type are used, the small sizes, 3¼ x 4¼ or the 4 x 5, being the most popular. But these are very costly instruments and do not appeal to the average amateur, who wants something comparatively inexpensive, yet sufficiently efficient to make good negatives. High-speed instruments which cost a good deal of money are scarcely wanted by the amateur who wants pictures for his own amusement, or as records of a trip he has made, or home portraits of his friends.

Other arguments in favor of a small camera will readily occur to one. Perhaps the most



PORTRAIT
FRANK SCOTT CLARK, DETROIT

important is the smaller expense of operation. Films or plates cost less and the entire expense from purchasing the camera itself to the finished picture is less. And with most amateurs the question of expense is worth considering. To practically every one it is a matter of importance, and if good pictures can be obtained at a reduced expense by using a small camera, this portion of the problem is easily solved. Rightly handled, the small camera and its product will yield quite as satisfactory pictures as the large one, but of course it requires practice to give the facility.

There are all sorts of advice offered to the worker with the small camera, and he is told he must do this or that to insure good results. He might as well forget a considerable proportion of this advice and begin to investigate for himself. He must practice. That is the main consideration, and unless he does practice he will not succeed in producing good pictures. Some of the small cameras have plate adapters and can be used with the ground glass, but when roll film is used it is impossible to focus and one must learn to use the finder. On the better grades of small cameras and all kodaks these finders are sufficiently accurate to record with substantial certainty whatever the operator may want to get, but it is always well to make a test and be reasonably sure that the finder is accurate before attempting anything that is serious.

If one gets an occasional negative that possesses some particular interest, or is pictorial, enlargement is possible, and the good lenses supplied with the small cameras mentioned permit any degree of enlargement without distortion or blurring. The writer has enlarged in his own lantern from the 2½ x 4¼ negative up to 18 x 24 without a suspicion of distortion, and 8 x 10 or 11 x 14 enlargements can be easily made from the same sized negatives without loss of quality. In fact, the enlargements are better than the small prints because in the process of stretching they acquire softness and the range of tones is frequently improved.

After all the large picture is what is wanted, and the amateur who has a small camera can have large pictures at will, but he gains in this respect,—not every negative is sufficiently good to be enlarged, hence he has no expense for large plates or large paper for printing unless his negative is worthy the extra cost. Every worker with a small camera should exercise just as much care in composing his pictures as he would if the plate were a large one. Because his film costs only a few cents for an exposure he should not waste it, but he should study his pictures carefully, look to the arrangement and the lighting, and never open the shutter until he is reasonably certain the result will be pleasing.

If he does this, he will advance just as rapidly in artistic development, and his negatives will be worthy enlargement, or will transform into lantern slides with pleasing results. It is quite as important for the cultivation of one's appreciation of art that these small pictures be made with the utmost care. The hand camera is such a facile instrument that sometimes the worker forgets this admonition and wastes his negatives, but he should work with quite as much restraint as when using large plates. If he does this, he will enjoy photography more and more and will seldom be seen without his kodak or other small camera with him.

FOR much under-exposed plates eikonogen is very suitable, and the following is a formula which has been much recommended: —

A.	Eikonogen	25 grains
	Sodium sulphite	96 grains
	Potassium bromide	2 grains
	Water	3 ounces
B.	Sodium carbonate	72 grains
	Water	1½ ounces

Mix these two solutions just before use. As the keeping qualities of an eikonogen developer are not at all good, it is not advisable to make up more than is actually required at the time.

THE OX TEAM FELIX J. KOCH

WITH THE CAMERA ON A BALKAN CROSSING

FELIX J. KOCH

WE had heard much of the pictures one might get, in safety at that, on that part of the nightmare of even the more adventurous tourist, — the Balkans, —which lay on the route to Rjeka. The prospect did seem such a pleasant one we were loath to attempt it; not so much because we disbelieved, but because it had been painted so glowingly, we feared it must, after all, disappoint.

And, besides, it was decidedly cozy where we were, at the little inn at Banjaluka. The supper was good, — there was the native *guylas* and the sausage, the beer and the breadstuffs, and all these for thirty cents. Over it we could loiter, poring over the papers of nether-Bosnia.

Interesting, indeed, on a Balkan wandering were these papers just now. How the Serb coronation, set for September 18, would be postponed: how the Greek Patriarch had opposed the Governor of a *vilayet* in Macedonia, and then how the Americans were having troubles in Turkey, over the collection of debts.

Then, too, as we read, we could watch another table of young army officers, — these men and one of the older officials dining and having a great time over their beer.

Already the opportunity for pictures was manifest, everywhere. Just in these people, for instance, one might gather studies; they were so engrossed, for the moment, in politics and beer.

When a new arrival came up, he approached whoever might be his superior and stood at salute until that one chose to rise and shake hands with him.

FELIX J. KOCH

[illegible] ourselves more like it, as we retired to the room. [illegible] for laundry tip inclusive — could not spoil [illegible] to be copied, that drove us in so soon.

[illegible] our promise. We might have gone this day by diligence [illegible] but, at cost of but a florin each, Levy, the commercial [illegible] thence. The diligence would charge forty cents [illegible] had three such, on which we would have to pay; [illegible] It would not alone be cheaper, but more pleasant.

[illegible] out under the trees; this despite the fact we had over- [illegible] the genial old chambermaid.

[illegible] under the trees, on the American chances and peas- [illegible] ourselves, to note how the trip came in mental re- [illegible] profit, for crops were small, and wages low, — so that [illegible] but four or five sorts in this land; that, too, ought [illegible] though not dried fish too, would be a bonanza to these [illegible] three hundred per cent assessed, things would be cheaper [illegible] The great china stoves could be replaced by furnaces; cheap [illegible] American garments must "*go*" well, for folks delighted [illegible] They had heard so much about these things, in letters from [illegible] agricultural machinery, were other crying needs. A threshing [illegible] from place to place, along the east Adriatic, and be [illegible] American harvesters so might go from place to place.

[illegible] exhibit American goods, and in the native papers we might [illegible] too, were suggested, for these would be kept by [illegible] the prices they quoted. Already innumerable American

THREE WIVES OF ONE MAN FELIX J. KOCH

sewing machines were here, — so many they made these now at a European branch factory. A commercial treaty was needed with Austria, for she would make up by the greatness of the import what she might seem to lose by the lowering of the tariff. By the giving of these new things to the people, she would do much to quiet the discontent prevalent over her realm, — and for a moment cause folks to close their ears to the Pan-Slav, the Irredentist agitators; this the more when Austria was busy with Hungary and Croatia.

There was a chance, too, for American tents among the simple crop watchers; and to one who could find a use for the ubiquitous pomegranate or the wild fig, there was a fortune at hand. The wild olive, too, could be had for the asking. All they needed was Yankee ingenuity to set these things to use.

It was tedious, notwithstanding, this writing, when the day without was so beautiful, and we could hear the bells on passing wagons, much like cow-bells at home. Otherwise it was quiet, here in picture-land.

Picture-land it was, indeed; even in the night it had wrought its effect upon us, and we dreamt of being received by some fairy tale Prince,—this in a chamber where the raised platform or dais was draped with American flags, out of courtesy. The flags drew aside, and he sat within, on his throne. It was an image that played before us still, as we wrote. And it, too, urged us on. We must hasten to mail the letters, and take farewell glimpses here.

We could see the magnificent two-story home of the Railway Management going up (of stone) just opposite the railway station, — a military railway that. Then a gypsy selling blackberries caught the eye. Strolling in his wake, we came again to the Bosna in season for dinner time. Cheap indeed, can one feast in Bosnia! Eighteen cents for a chicken; three for potatoes, mangoes, wine, and a plum dumpling; then beer to crown it all; and the meal, with tips included, comes to just half a dollar.

A doctor of the neighborhood (Karl Knotr, his name) dropped in to ask that "we send him any old American stamps we might have; he would be but too glad to return something from Bosnia for these." Then there was the room at the Weitzl to settle, — a dollar-twenty that for three

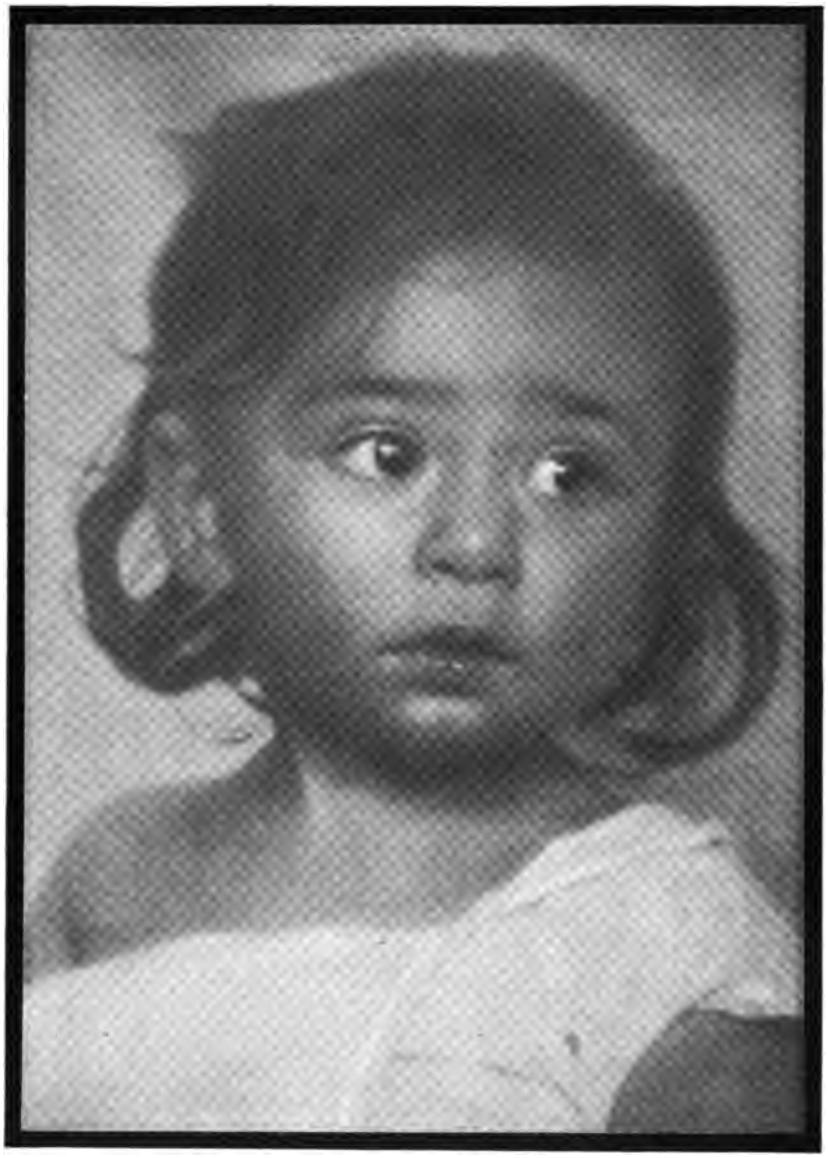
RESTING BY THE WAYSIDE FELIX J. KOCH

nights; and a crown above for tip. There would be season for a nap still before the carriage came. It was really a two-horse landau, this vehicle, — the driver a Turk. He called for us, made obeisance, and counted the baggage on it. Then he took a tip of a dime, graciously, for so much of the service. With us, inside, he went after Levi ("Simon Levi, of Trieste, of the firm of Girolimo and Simon Levi, Sir," he used to put it, — dealers in cotton goods, coffee, and the like). A German Jew of Trieste was Levi, but an agreeable companion, nevertheless. Then and there we must again agree each to bear our share — a dollar-twenty — of the cost of the trip; even then it was cheaper than by diligence, thanks to baggage.

It was quarter to two when we started; out by way of the little shops of the Moslems, one-story, and, at the front, in the opening, having the wares suspended, where a window should have been. On the front counter and on the shelves about, within, there were still other of these wares. A Serb priest in long black robe and with fez of black as foil to a heavy beard below, and again some Turkish women in gowns of black, the head swathed in two pieces of white textile, caught the eye. The white cloth came down over the eyes in such wise that the woman could see the pavement as she walked. Again a Turkish *hodja* or priest, in white turban and gown, came in for variety; the other turbans were used in place of the fez, as being warmer in cool weather. Only a *hodja* or pilgrim, Levi claimed, might have a beard; other Mohammedans were limited to a mustache. A green turban, too, was another mark of distinction.

Women sauntered past us, too, on the shoes of clogs. Three Bosniacs, a-horse, wearing red fez, dirty white shirt, and then the sleeveless sheep-skin coat, were passed, as we entered the mountains. The slopes here were tilled, a few trees were sprinkled about them. Then another *hodja* went his way, and Christian Bosniacs innumerable followed behind, the most of these a-straddle a donkey, the creature likewise bearing panniers. Again, the peasant would walk along beside these.

(*To be continued*)



CHILD PORTRAIT
MARTHA GELDMACHER, HANNOVER
German Professional Section, Dresden Exposition

SOME DANGERS OF PHOTOGRAPHY

BY the average amateur, danger to oneself or to others would hardly be associated with ordinary photographic practice. Yet there are some elements of danger as to which a few words of caution may not be amiss. Most developing agents are very poisonous in nature, if taken internally, and while it is not to be presumed that the amateur will deliberately swallow the developing solutions, there is always the possibility of confusion if the solutions are stored with medicine bottles, as is often done where space is limited.

Some of the other important solutions used in photography contain mineral poisons or corrosive acids. Solutions should always be labeled plainly, and old labels on bottles should be washed off and destroyed. The amateur himself would probably never mistake his solutions for medicines, but the danger is mainly to others, who might easily, when in haste and in bad lights, mistake them for internal remedies. Chemicals should always be kept out of the reach of children, who may in play swallow them, with serious results.

Most of the coal-tar developers, taken internally, would cause serious trouble. Pyro, for instance, is very poisonous, two grains sufficing to kill a dog, and no certain antidote is known. As they are used in rather dilute solutions, and have very disagreeable taste, especially when compounded, little likelihood of poisoning by their means exists, save in the case of young children. Poisonous effects externally from developers are, however, rather common.

Metol poisoning is now well known. It need not worry the amateur, especially as the effect is cumulative and generally comes only after long practice with metol solutions. Ample warning is given the amateurs who are susceptible to this chemical. Usually the finger nails are first attacked, an itching sensation developing around them, which should be the signal to stop its use at once. Numbness and stiffening of muscles follows, and a peeling off of skin. Fortunately, metol poisoning is an idiosyncrasy, and is not extremely common, but there is no excuse for the amateur who has once had symptoms of this trouble and does not discontinue the use of the developer. A return to its use after one attack will quickly bring back the symptoms and precipitate trouble anew. Those who are troubled should turn at once to ortol, which lends itself readily to combination with hydrochinon in all forms of plate and paper developers, giving substantially the same results.

There is no doubt that some of the irritation laid at the door of metol is due not to the developing chemical, but to the alkali used in connection with it. Cases have been known of skin irritations coming from hydrochinon and rodinal developers, both of which depend for their effectiveness on the use of caustic alkalies.

The developing tank makes it possible for some of the metol sufferers, who are attached to the developer, to resume its use in moderation for plates, but it is in paper developing that immersion of the fingers and hands is most common. Finger cots are a nuisance in general; the fingers are restricted in action, and many amateurs will not use them at all.

Oxalic acid, used in the pyro developers as a preservative of the pyro, is a very poisonous chemical when taken internally. Sixty grains has been known to cause fatal results. Its salts are equally poisonous. The principal one, potassium oxalate, is the main constituent of platinum paper developers.

Sulphite and carbonate of soda are harmless. Potassium carbonate and caustic potash and soda, used in developers such as hydrochinon and glycin, are corrosive and poisonous. In dissolving, caustic potash liberates heat, in sufficient quantities to crack the bottle if water is poured on a large quantity. The chemical will burn a hole in cloth or in the flesh when pure and fresh, so that care should be taken when breaking up sticks for weighing.

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THE VIOLINIST
C. K. FREY, UTICA

Sulphuric acid should be handled with extreme caution. Glass-stoppered bottles are necessary for this chemical. In chemical laboratories great care is exercised in mixing sulphuric acid with water. It should always be poured into the water or the developing solution, and never *vice versa*. This is because sulphuric acid plus water generates a great amount of heat, and it is therefore wise to stir in the acid with a glass rod, pouring in a small quantity at a time in a fine stream. The heat is thus dissipated by the large amount of cold water, while if a small quantity of water is poured on the acid, steam is generated, and the corrosive acid may be thrown up in the face by the explosion.

If sulphuric acid is dropped on the clothes, a red spot will be produced, and if not attended to at once, the fabric will be destroyed. Pour on some ammonia water at once. This will neutralize the acid, making ammonium sulphate (which should be washed out with plenty of water), and restore the color. The amateur photographer has a ready remedy among his photographic chemicals in carbonate of soda when ammonia is not available.

If sulphuric acid is spilled on the flesh (and the remarks apply as well to any other acid burns), put on some dry sodium carbonate or sodium bicarbonate (saleratus or cooking soda). Do not put the hand in water first, or the burn will be intensified.

AS EVENING APPROACHES *Buffalo Camera Club* E. I. McPHAIL, BUFFALO

Other corrosive acids are hydrochloric (muriatic), nitric, glacial acetic, and phosphoric, which are alike in respect to treatment with the above alkalies. Glacial acetic acid will produce a blister on the skin in a very short time, if a drop falls on it. Nitric acid will produce a red stain on clothing, which will not disappear when counteracted by alkalies, although the fabric may be preserved.

Occasionally we see a formula for etching glass with hydrofluoric acid, but rarely any caution as to its corrosive nature. This acid is a solvent of glass, and can only be stored in bottles made of gutta-percha or paraffine. It must be used with great caution. We have in mind a lady who wished to etch and roughen china, and applied the acid to the china with a stick of light pine. The same stick was used constantly, and in time the capillary attraction drew up the acid in the stick, so that, although no feeling of wetness or of burning occurred, a soreness developed in the fingers, which later became numb; the whole hand blackened and did not heal for months. The safest way to etch glass is by generating the acid at the time it is needed, by taking a flouride salt, such as fluorite, and decomposing it by sulphuric acid in a lead dish. The fumes of acid produced immediately act on the glass and are decomposed. This must be done in a good draught or outdoors, and the fumes on no account breathed.

The fixing bath seems to be a harmless member of the family of photographic solutions. We know of some professionals who identify hypo by tasting it, which practice is hardly to be commended. The sulphurous acid fumes, which come from freshly mixed acid fixing baths, are some-

HIS FIRST BUBBLE *Buffalo Camera Club* C. L. PECK, BUFFALO

times obnoxious, but scarcely harmful. In the days of the wet plate, when cyanide of potassium was the only fixer, the fixing bath was handled with caution, but the hypo of to-day, while blamed for almost every photographic evil, is not in the poisonous class, and, in fact, has some use in medicine.

Mercury intensification is a process which has some dangers. Three grains of bichloride of mercury will produce a fatal result. Fortunately, we have a way of intensifying which will replace the poisonous mercury baths in the redeveloping process, such as is commonly used for sepia tones on papers. The danger in using mercury is in absorption into the system through the pores or in cuts. Mercury iodide intensifier, known by the scarlet constituent which shows in the mixture, has similarities to the bichloride mixtures. Copper intensification might be substituted for the mercury processes, if desired. Perhaps the future will bring forth some redeveloping method which will eliminate the foul smell of sulphides used in the redevelopment processes, but as yet no cheap and efficient substitute is at hand.

The chemicals used for reduction of density of negatives, such as potassium ferricyanide, and ammonium persulphate, present no dangers. Chemically this non-poisonous nature of the ferricyanide (red prussiate of potash) is curious, since it is related so closely to one of the most deadly poisons known — the cyanide of potassium.

Cyanide was formerly used in photography for fixing wet plates, and is to-day used in the ferrotype or tintype process. Hypo, being better and cheaper, naturally superseded cyanide, which is now used only occasionally for taking off silver stains on negatives or papers or on the hands. The cyanide should never be used on the hands if there are any cuts or broken flesh. The cyanide of commerce is impure and weak in quality, which probably explains why many old-timers have expressed contempt for precaution in handling it, but even nowadays it claims an occasional victim.

There is but one way to use cyanide. Apply it with cotton, making up enough only for immediate use. When through, destroy the cotton and empty the solution down the waste pipe.

The carbon and gum processes require bichromate of potash solutions. There seems to be no precautions necessary for the occasional worker, but if continued work is to be done, rubber finger cots had better be used. The irritation may become ulceration if not attended to. A mixture of ammonia, glycerine, and carbolic acid is recommended as an effectual cure. The above remarks apply to any of the similar processes using chromate salts.

In emulsion making, the silver nitrate used is poisonous, and also blackens the skin. The cadmium salts and bromides, iodides, and chlorides used are not particularly harmful. Iodine is poisonous, and should be kept away from ammonia, as it forms with it an explosive compound.

There is no particular risk in emulsion making, other than fire risks, if collodions are used. The cadmium salts used are not harmful, and the silver nitrate is so caustic that it could hardly be swallowed.

Amateurs are strongly advised to keep away from manufacture of flash powders. There are numbers of precautions to be taken in such work, and in spite of them, flash-powder manufacturers themselves often go up in smoke. If you must make the experiment, don't fail to powder each ingredient separately. Have your chemicals dry before powdering, and use a clean, dry mortar, with a perfectly dry pestle. Use small quantities. Never, under any circumstances whatsoever, attempt to powder a mixture. Don't use a hard object in mixing. Metal must be avoided, and the use of metal receptacles is absolutely prohibited. Roll your pestle when powdering and don't pound. The mixing is best accomplished by placing small quantities on a sheet of tough paper; and by manipulating the sheet by the ends, the ingredients may be mixed together thoroughly.

If your magnesium is impure, or your potassium chlorate contains nitrate impurities, you have all the necessary preliminaries for a good, hard bang. Red phosphorus should never be used under any circumstances in an amateur powder. It should be obvious that flash powder should not be made in the house, nor in a room with a stove, and yet this latter cause was the direct reason for the destruction of the factory of a prominent manufacturer at a recent date.

In another instance, a manufacturer who wished to test a new mixture of flash powder thoughtlessly put some in a blacking box. When the cover was jammed on, the explosion blew the fragments of tin into his hand. A cardboard or a wooden box is the best receptacle.

In flash-light photography the danger to others is to be considered. In one celebrated flash-light law-suit, damages were exacted from a photographer whose flash-light scared a boy trespasser. The boy, being frightened by the flash, fell off a sled and broke his ribs. The jury could not see the responsibility otherwise, and the photographer had to pay. The cause of the explosion was the taking up of moisture from fog by the impurities in the flash powder, the dry powder underneath, confined by the damp crust, acting as a miniature bomb. Under no circumstances put explosive powder in magnesium lamps, nor do as the Western man, who explained to the judge in his suit for damaged camera and injured feelings, that he put off the powder inside the camera.

Now that cheap flash bags are available for home use, similar to the big ones used at banquets, the amateur photographer can work with reasonable safety. For small flashes, the Eastman Flash Sheets furnish an ideal method. Lamps for pure magnesium only are easily handled, although carelessness in standing too near draperies must always be watched for. More accidents have resulted from putting compound flash powders in magnesium lamps than all other causes put

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LIGHTNING H. E. HILL, FORT PIERCE, FLA.

together. The injured one has no redress from the photo supply dealer, for the courts have decided that the dealer is an agent only, and that it is presumed that the purchaser of an explosive will take due care not to confine it in a closed receptacle any more than he would if he bought gunpowder. Nevertheless, it is customary in many photo stockhouses to warn the customer on each and every purchase, as a matter of policy.

Speaking of explosions reminds us of the newspaper photographer who was invited to a fort in Boston Harbor to photograph the firing of some big guns. He set up his view camera and tripod behind the gun, near a temporary shanty which had been set up, and when the gun went off, the camera exploded, as well as the shanty behind him, because there was no other way for the air to come out of the bellows.

It seems a little far-fetched to speak of the dangers of reflecting cameras, but as the mirror reverses rights and lefts, there is sometimes a temptation to step towards instead of away from, a moving train or automobile when they begin to move quickly on the focusing screen.

Amateurs abroad should avoid photographing near fortifications. The prohibited points are usually along frontiers, but the average tourist will usually have difficulty in getting near enough with the camera, on account of the guards, to get into any serious trouble.

Celluloid films are inflammable, and consequently when you have some discarded negatives which you wish to destroy, do not throw them in the stove in quantities.

EDITORIAL COMMENT.

ON CRITICISM

A YOUNG man dropped into the sanctum not long since and asked the editor if he had time to look over a few prints. As the editor always has time to help any earnest individual, he brought forth a large collection of 4 x 5 prints of various subjects and ages. The prints were looked over and to the editor the result seemed discouraging. Of print after print the most that he could say was, "You have failed," "You did this wrong," "You should have given more exposure," "You should have chosen a different viewpoint," etc. After the prints had all been looked at, the remark was made to the young man, "I am afraid you feel very much discouraged after so much caustic criticism. Just remember that my opinion is only a personal opinion and not worth any more than that of any one else, and you may find lots of people who admire your photographs." The young man said, "I do not care how severely you criticize my prints. It does not discourage me at all to be told they are bad, if I am told

AFTER THE STORM LIZZIE M. PEABODY, MANCHESTER

First Prize, Monthly Competition

WARM AFTERNOON J. RATTRAY WILSON, NIAGARA FALLS
Second Prize, Monthly Competition

why. My friends do not give me any help. All I can get out of them is 'That's fine,' 'I like that.' I do not care whether a man likes my prints or whether he does not like them, if he will only tell me the reason. When my friends say 'I like your print,' and I know it is not a good one, they do not please me. When you tell me that it is a very poor print, and tell me why you think so, you have given me the inspiration to do better, and a hint as to how to do better. This is the kind of criticism that I like, and the kind that helps."

We are not able to give personal criticisms to many of our readers, nor are we able to criticize as many prints as they would like to have us. One print per month from a reader is all that we can find space to criticize in the "Portfolio," and the pressure of work prevents us from undertaking private criticism by mail. We try, however, to make the criticisms in the "Portfolio" helpful in the manner outlined above. We hope that our criticism is constructive and not destructive, and that in every instance it offers some suggestion as to how work may be bettered. If it does not, we regard it as a failure. We sincerely trust that every reader who sends in a print for criticism will take it, no matter how unfavorable it may seem to him, as a hint on how he may produce better work in the future.

PHOTOGRAPHY UNIVERSAL

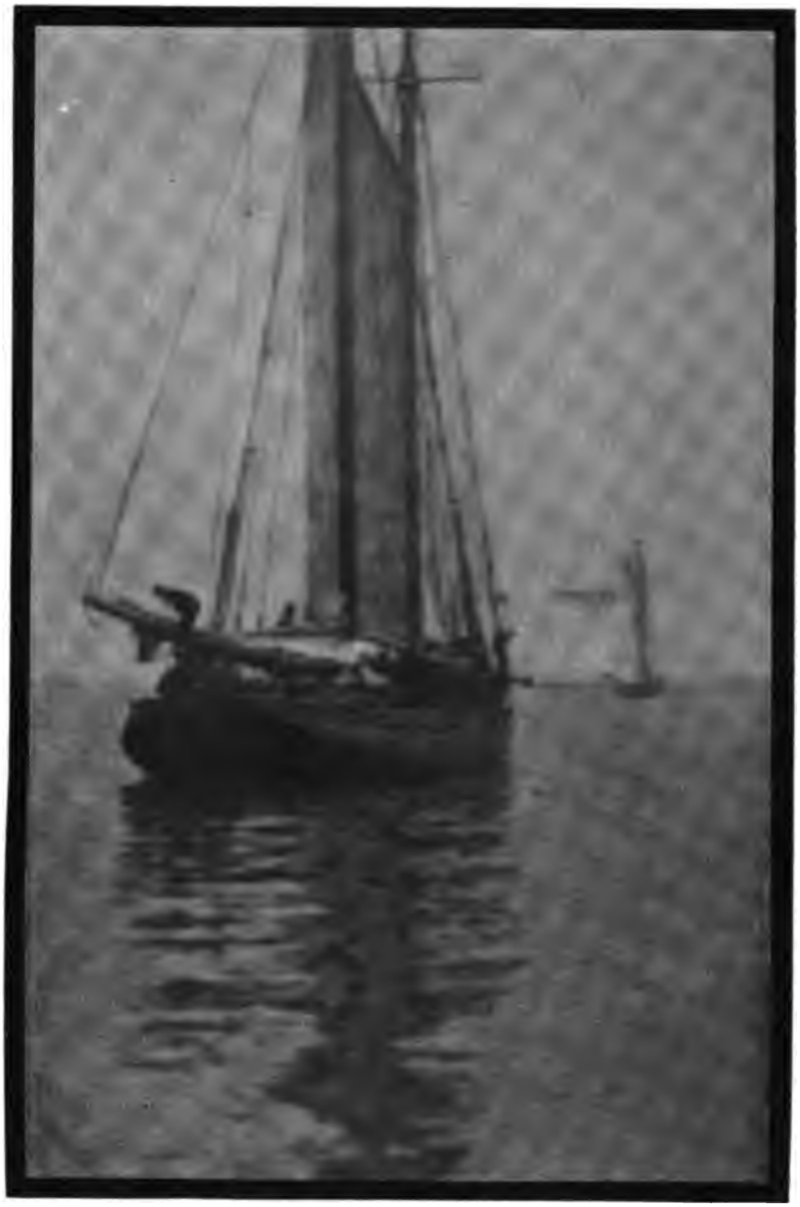
It seems hard to find in this world a place to which photography has not penetrated. Wherever civilized man goes, the camera goes with him as a matter of course, and even those whom we are not accustomed to regard as our equals in modern culture seem to be taking kindly to this most interesting art. One of the most inaccessible regions of the earth is Chinese Turkestan, a desert country ringed about by the highest mountain chains on earth. A recent French explorer has traversed this country, and made most interesting archeological discoveries. With an account of these we do not care to burden our readers. What interested us most in his account was a description of his visit to Ouroumtchi, the capital of Chinese Turkestan. Here he found in exile a man formerly of great power in China, Duke Lan, cousin german to the late Emperor, and brother of the great boxer chieftain of 1900, Prince Touan. In this memorable uprising of the Chinese against the foreigners Duke Lan took a prominent part, and as a result thereof he was degraded from his rank and banished for life to the farthest regions of the Empire. In his exile he kills time by taking snap-shots with a kodak. How films and chemicals reach this isolated spot is one of the mysteries of commerce, but they not only traverse ten thousand weary leagues of sea, river, and desert trail, but get through in good condition, mute testimony to the inventive genius and manufacturing skill of Rochester, N. Y.

OUR MONTHLY COMPETITION

ALTHOUGH water seems to be accessible to almost every photographer, the result of our last competition, "Water Scenes," cannot be considered satisfactory. A large number of prints were sent in, but the standard was not as high as is customary in our competitions, and the number of Honorable Mentions very small. A large number of prints sent in really belong to the class of pure landscapes or genre. Prizes are awarded as follows: First prize, "After the Storm," by Lizzie M. Peabody; second prize, "Warm Afternoon," by J. Rattray Wilson; third prize, "Morning," by James Thomson. Honorable Mentions are given as follows: "The Rising World of Waters, Dark and Deep," by Beatrice B. Bell; "The Waders," by T. W. Kilmer; "The White Sail," by H. S. Kirchberger; "Waterfall," by Carper A. Kreps; "Between Voyages," by Albert E. Mellor.

THE MORAL EFFECT OF PHOTOGRAPHY

A CORRESPONDENT in speaking recently of the effects of the pursuit of pictorial photography on some of the young men of his acquaintance, seems to feel that this influence has been a strong one in the moral well-being of these young men. He says, "The comparison of the moral status of our club fellows with that of some other young men's clubs that I know of leads me to believe that just such an effect is going on. Our fellows are none of the good boy kind. None of the active workers are Sunday men, but there is an atmosphere of manliness and sanity growing more pronounced as the fellows dig into the mysteries of art, get out into the woods and fields, and commune with nature." This is surely a most desirable result, and we have no doubt that similar words might be said of other young men who are deeply interested in photography. Getting back to nature is a strong antidote to the temptations of our cities, and photography as surely as any other hobby takes one outdoors.



MORNING
JAMES THOMSON, DORCHESTER
Third Prize, Monthly Competition

OUR PORTFOLIO.

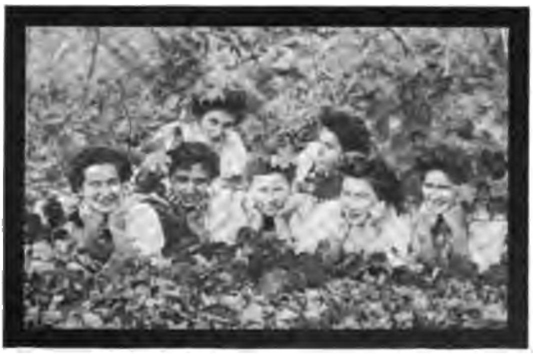
Prints for criticism under this heading should be sent to Frank R. Fraprie, 6 *Beacon Street, Boston, Mass. Only one by each reader can be criticised each month. Prints are not returned after criticism. An asterisk indicates that the print is reproduced.*

475. B. J. Ruzicka. — "Snowstorm in Central Park." This print possesses pleasing atmospheric quality, presumably because the air was filled with flying snow. The values in the snow on the ground, however, for the same reason do not seem as good, and it seems to us that the print is too dark. The composition is not particularly pleasing. The branches on the pine tree at the left droop ungracefully, and make a maze of conflicting straight lines in the upper portion of the picture.

476. Mrs. C. T. Ellsworth. — "Master of All He Surveys." Your young subject has adopted a rather unconventional but quite characteristic attitude. The lighting on the face is good, and in some respects this is a very good outdoor portrait. We do not like the attitude of the sitter, however, as the position of the legs is ungraceful and unpleasant. Trim off three quarters of an inch at the right, left, and bottom, and you will considerably improve the arrangement.

*477. Earl J. Houser. — "Just Girls." This is very good technical work, and an interesting grouping. Undoubtedly the picture is extremely pleasing to the subjects, and we have no fault to find with it as an outdoor group.

478. Willard Maule. — "Ruins of an Old Mill." Your picture does not live up to its title, as the ruins of the mill are so far in the background and merge so completely into their surroundings that it is rather difficult to discern them. If it were not for the chimney this would make a rather pleasing landscape. The sweep of the snow-covered shore is very graceful, and the mass of trees in the upper left-hand corner balances the snow below it very well. The picture is a little more diffused than is necessary, but has good quality, except for the snow, which is a trifle lacking in detail.



477. JUST GIRLS EARL J. HOUSER

479. George Ingalls. — Your unnamed landscape is an example of the kind of foreground studies which have of recent years come into increasing popularity. The motive of the picture is the reflections in the water, and the quality of this foreground with its curves and masses of light and dark is very pleasing. The upper portion of the print, however, is hardly diversified enough to make a strong interest, which is needed by the long stretch of reflections below. There is a little too much top to the print, and yet it could hardly be improved by trimming, in our opinion.

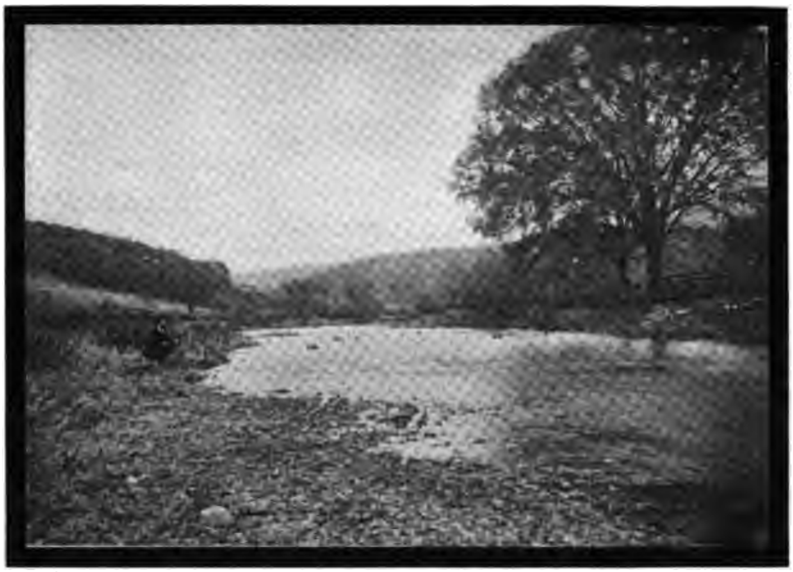
480. K. M. Stokes. — Your landscape without a name shows evidences of careful work, but the negative is apparently a trifle thin. The result is a lack of high lights in the snow which makes the print monotonous. Snow in sunlight should show some high lights, as high as is possible to produce with the medium you are working with. The curve of the road to the bridge is graceful, and this latter object furnishes a passable point of strong interest. The print would gain materially by trimming about one inch from the bottom and three quarters of an inch from the top, changing the shape from a vertical to a horizontal rectangle.

481. Henry C. Ware. — Your unnamed landscape suffers from one of the faults which we most commonly find, that is, under-exposure, and over-development. The shadows of the rocks in the foreground are jet black, the sky is pure white, without gradation. It is a self-evident fact that you have lost some values, and, therefore, the print must be untrue in its range of tones. In composition it seems to us that the heavy mass of rocks in the right hand side is too prominent, throwing the whole print out of balance.

482. S. Franklin. — Your landscape shows careful technical work, and is a record of a pleasing spot. The vista through the trees is excellently chosen, and the values preserved through to the distance. We feel, however, that if you had eliminated the small tree at the right, or else made it occupy a position somewhat nearer the center of the picture, the line arrangement would be better.

483. M. H. Bell. — It is rather difficult to make a wholly pleasing picture of such a bare-limbed clump of trees as you have chosen for your central object. With the bare and not particularly graceful branches sprawled against a pure white sky, this makes a confusion of angles which the eye does not care to dwell upon. The picture will be greatly improved by trimming an inch and three quarters from the top, and about one and one half from the bottom.

484. Jules A. Bourquin. — "The Chaldron." This is a spot which undoubtedly is attractive to the eye, and as you saw it with the sun's rays dancing upon the water, it probably was a most brilliant spectacle. As you have transferred it to paper, however, it fails to give the impression which you desire. The eye does not readily appreciate the true relation of near objects in down hill perspective, and it takes some little study to understand the relation



485. FISHING O. R. PHLEGAR

of the objects here portrayed. The water rushing to the brink of the falls does not give a true impression, and it was only after some little study that we were able to make out the character of the scene here represented, that is to say, water rushing from the observer toward the brink of a small waterfall.

*485. O. R. Phlegar.—"Fishing." This is a print of very delightful quality, true in values, and of the most excellent technical merit in every respect. It is also a most beautiful scene, and pleasingly composed. The only thing in the picture which we do not like is the fisherman who gives it its title. This black spot is not well placed, and detracts from the interest of the picture in our eyes. If he had not been present, and the camera had been placed a little differently, so as to bring the tree at the right a trifle farther into the picture, we would have had little criticism to make of this print.

486. J. Frank Curtis. — "Sylvan Drapery." Photography in a cypress swamp with the trees loaded with moss, must be a rather difficult operation, especially in selecting an unencumbered viewpoint. It seems to us that you have not exposed this print quite as much as would be desirable. The shadows are a little bit dense, although the middle tones seem to be well rendered. There is, however, so much in the picture, that the eye becomes confused, and we would suggest that you would do well to choose subjects containing somewhat less detail; in other words, more simple landscapes than the confusion of the subtropical swamp. In this particular print, the inclusion of the two young ladies at the left side was not advisable. There was enough material here for a picture if you had used only about two inches and three quarters of the left-hand side of the picture.

487. Miss G. Harber. — "The Mist on the Mountain." This is an interesting picture of a natural phenomenon and makes a good record of the mist layer floating across the flanks of the great peak. The composition of the trees in the foreground, however, is not the most pleasing. It seems to us you would have done better had

490. SNOW SCENE R. E. HERRICK

you moved your camera somewhat farther back, thereby bringing the branches of the tree on the left lower in the picture and minimizing the importance of the bare trunk. The shrubs at the right also do not seem to compose well. In addition to this the foreground is under-exposed. Trimming a little on the right helps the picture in our opinion.

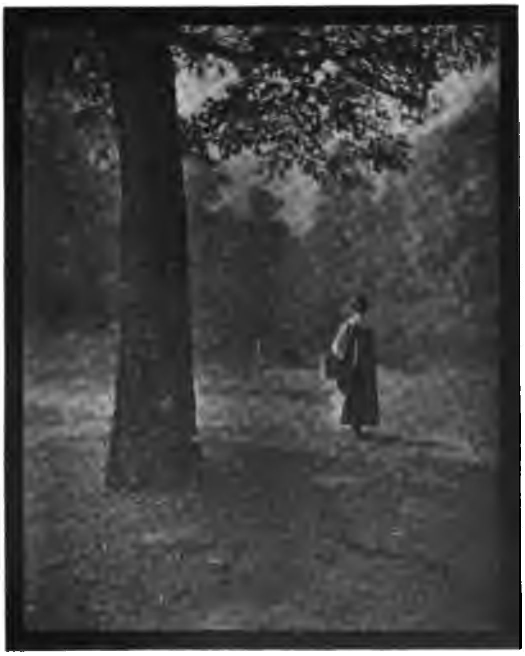
488. **Belmont Odell.** — Your portrait was apparently taken at too close quarters. The result is considerable foreshortening, which causes the knee of the sitter to appear about twice the size of his head, a wholly unnatural condition of affairs. The only possibility of making this print presentable, is to trim off at about the height of the elbow. The face seems to be a little lacking in texture, but on the whole the upper half of the portrait is a fairly creditable piece of home portraiture.

489. **Forman G. Hanna.** — "Reynold's Creek — Winter." We would suggest trimming about an inch and a quarter from the top of this print, and nearly two inches from the bottom. The result will then be worthy of careful enlargement, and will give a picture of very pleasing lines and excellent snow values. The atmosphere and the rendering of the snow values are very truthful and beautiful, and the composition is also excellent.

*490. **R. E. Herrick.**—Your little snow scene is very good technical work, but suffers artistically through having two vistas, thereby dividing the interest. You can make one picture by trimming a half inch to the right of the most prominent tree, and also cutting a little bit from the left. Another interesting bit can be made by trimming one half inch to the left of the same tree, and possibly a little from the right edge of the picture. Either of these trimmings will be an improvement on the present arrangement.

*491. **John H. Wurdack.**—Your pastoral landscape appeals to us as a very delightful picture, and we agree with you that the atmospheric rendering is very pleasing. It seems to us that the branch in the foreground is a trifle distracting, making a third interest beside the two strong ones already present in the tree and the girl. Aside from this, however, we have little but praise for the picture, and we feel that you have done right in considering this as worthy of preservation.

492. **F. C. Irwin.** — "Hillside Pines." This print shows excellent technical work, and the composition is interesting. The picture suffers through almost entire annihilation of the distance, but otherwise we could suggest but little improvement in arrangement.



491. LANDSCAPE JOHN H. WURDACK

493. **C. W. Cramer.** — This print has an excellent idea, and would make a very good illustrative picture were it a little better technically. Work of this kind should be in good focus, and this is unsharp all over. This imparts in some respects a very pleasing quality to the rather unattractive background, but detracts from the satisfaction of the eye in dwelling upon the figures in the foreground, which should be somewhat better defined. It is, of course, difficult to get such a quickly moving action as this, on the plate, without using a reflecting camera.

494. **Emmett K. Emslie.** — We see no reason for your trimming this print in an oval, and we most decidedly object to having the ducks occupy the mathematical center of this oval. It is also unfortunate that they are so closely grouped together, as it would have helped the pictorial effect if their grouping were more open. The print shows signs of under-exposure and over-development. We should be glad to have you send in your description of the tilting camera bed clamp for our department of "Practical Hints."

495. **Burdette Harrison.** — "A Young American." Your picture of a tot standing beside a group of cannon balls higher than his own head is an interesting record picture, well done, except that a little more exposure would have made a more harmonious negative.

496. **J. Kreig.** — "At Break of Day." We agree with you that the trimmed version of your print is more satisfactory than the untrimmed one. At the same time, the foreground is a little monotonous, and you could dispense with even more of it. The silhouetted trees against the morning sky give a very pleasing impression.

*497. **Walter L. Brown.**—"A Quiet Stream." This is a very soft and pleasing print, in which the uninteresting distance is so subdued as to give a good atmospheric effect. The quality of the water is excellent, and the graceful arch of the branches makes a most pleasing line composition.

498. **Clifford Kirk.** — "Presbyterian Church." You have not chosen the best point of view from which to take this picture, assuming that the proper point was clear for the placing of your camera. From the point which you have selected, the view is obstructed by the telegraph pole in front of the church and by the arc lamp strung across the street. If you had moved your camera farther to the right this pole would have appeared to the right of the church and might possibly have been trimmed from the plate. The arc lamp would also have moved from its present position to a point in front of the lattice work of the tower windows, where it would have been inconspicuous. Another fault which you have committed is tilting your camera upward so that the church appears to lean back. If your camera has a rising front, this should have been lifted, and the plate holder kept strictly vertical. If no rising front is available then it was necessary for you to go far enough back to be able to get the tower on the plate while the camera remained absolutely level.

499. **George A. Nelson.** — "Reflections." We have no hesitation in saying that there are possibilities of a most pleasing picture at this spot, and in some respects the print which you have sent is very attractive. The graceful sweep of the strong line of the bluff curving to the water's edge and merging into the horizontal line of the water makes a most attractive composition. The scene, however, is too flat and monotonous as you have taken it. In some way you have lost the low tones of your scale, leaving only medium and light grays and white, and depriving the picture of the strength which it should have. The halation against the sky is also unpleasing.

*500. **Arthur W. St. Clair.**—"Breaking the News." This picture showing the very attractive head of a young lady bursting through a newspaper, is a very good example of the pictorial pun, a subject on which we propose to publish an article in the near future. It is excellently done, and a most satisfactory print in every respect.

501. **Elmore McGlashan.** — We are of the opinion that the three little prints which you submitted are not at all bad for a young

497. A QUIET STREAM WALTER L. BROWN

man of thirteen years, and if you keep on making as good prints as "Sunny Sonny," you will be quite satisfied with your camera work in a little while. We could, of course, point out to you faults in the prints, but this particular one is properly exposed, and rather interestingly arranged. You will have to guard against the tendency to give too short exposures and longer development. Do not imagine that your camera, with its rather slow speed, will enable you to take snap-shots at any time of the day. We would advise you to practice taking time exposures, of a half second or a second, using the smallest stop on your camera, and think you will find better results in this way than if you took all instantaneous exposures.

502. L. W. Halbe. — "Out for a Drive." This is an excellent specimen of straightforward photographic work, with correct exposure, development, and printing. It is a first-class record photograph, and undoubtedly a source of great satisfaction to those who are interested in the boys who are photographed.

503. F. C. W. — "Frosty Morn." This subject, a grove of trees loaded with ice and photographed against the sky, is a most difficult one to adequately reproduce, and we do not feel that you have met with entire success. One great mistake which you made was to endeavor to include far too much in your print. A few trees, interestingly arranged against a background of hills or other trees in the distance, would have made a more interesting subject than this closely crowded grove.

*504. Fred E. Crum.—"Portrait." This is a most dignified and satisfactory production, equal in many respects to the work of many good professional operators, and we have little but praise for the treatment. It would be advisable to bring out the bottom of the chair a little more to make evident what supports the sitter.

*505. Henry Eriksen.—"Toward Spring." As we have said before this month, the photographing of leafless trees is a rather difficult job. You, however, have succeeded in making a very interesting picture from the grouping which you have chosen, and we much prefer the print made through the glass to the sharper one. In this softened print you have a very pleasing feeling of atmosphere, and the quality of the snow and water is greatly improved. Possibly if you had been able to make the group of trees on the right a little more prominent and conspicuous it would have helped the composition. This might have been accomplished by shifting your camera somewhat to the right and somewhat nearer these trees. As it stands, however, we find the print quite satisfactory.

*506. Carl Krebs.—"The Thief." There is evidently some mistake in regard to this picture, which you state received no award in the competition for which it was entered. When the print appeared in the "Portfolio" we recognized it as having been submitted in a previous competition, and felt quite certain that an Honorable Mention had been awarded to it. This impression was confirmed by members of our office force, but we do not see that your name appears in the list of Honorable Mentions in either of the General Competitions judged since it was first sent in. Undoubtedly some mistake has been made, as this print was entitled to the award mentioned. The original list of awards having been destroyed it is impossible for us now to locate the mistake, for which we tender you our apologies. This is an excellent picture, and as you say must have required much patience to obtain. It is of the type of picture which we consider as illustrative or record, and is extremely well done in every respect.

*507. R. L. Hunter.—"Preparing the Stew." This is an excellent piece of photography. The print which you have sent in is in our opinion considerably too dark, and would be improved by less exposure in printing. The quality of the water in the background is very nice, and the placing of the figure by the fire, which is the principal object of interest, could hardly be bettered. We would suggest, however, that a little sunning down of the sky appearing through the trees, and considerable darkening of the stake at

500. BREAKING THE NEWS ARTHUR W. ST. CLAIR

the left would help matters. This can best be accomplished by a little water color or crayon sauce locally applied to the print. We would suggest also that the tent pegs and ropes in the lower left-hand corner do not add to the effect of the print, and the barbed wires should be eliminated.

*508. F. E. Rutherford.—"Mildred." This is a very pleasing portrait, a little bit too strong in its contrasts, perhaps, but well conceived and executed. The flesh tones on the face are interesting, but the lights on the hand, book, and dress should be very much subdued.

509. C. A. Sargent. — "A Glimpse of the River." This print is technically very good, and shows careful work on the part of the maker. The principal beauty of the scene lies in the beautiful water in the foreground, and we would suggest that a much more pleasing effect would be obtained by making this the most prominent part of the picture. This can best be accomplished by trimming heroically from the top of the print, taking off about one inch and three quarters. The horizon will thereby be brought high, the rather unattractive bare trees removed, and the blank sky eliminated.

510. A. N. Fehrman. — "Along the DuPage River." This print shows distinct evidence in the appearance of the water that the exposure was not instantaneous, and yet it seems to have been insufficient, as is evident by the entire lack of details in the shadows of the trees. Over-development is indicated by the pure white sky, which overbalances the rest of the picture. The composition is at fault in that the only point of interest, that to which the river runs, is in the mathematical center of the print, its weakest point.

511. E. Stanley Thomas. — "Sunlight and Shadow." This is a pleasing photograph of clouds, but the landscape below them is too panoramic in character to make a very artistic picture. With towering cumulus masses like this the landscape below should be diversified instead of composed of horizontal lines like this, which would be fitted much better by low-lying stratus clouds.

512. John W. Lee. — "On the Pawtuxet." This is a rather pleasing landscape, but the straight lines of the dam across the foreground are rather uncompromising, and do not add to the beauty of the scene. The sky is altogether too white and it would have been improved by the introduction of clouds.

513. Robert Ervien. — "Sunset on Lake George." This picture contains too many horizontal lines to compose well in any case, and the clouds broken in shreds and driven by a strong breeze do not harmonize with the horizontal lines of the shore and the water. The print was so simple, anyway, that printing it through cloth does not help matters at all, but is a serious defacement. The mounting is also too conspicuous in character, and the tones of print and mount do not harmonize well.

*514. George B. Miles.—"The Brook." This is an excellent print of a rather interesting spot, and possesses technical merit. There is too much in the picture, however, the manifold details confusing the eye and not allowing it to rest long at any particular spot. The stones in the foreground and river bank are far too white and should be toned down.

515. W. J. Smith. — Your print of a waterfall has had too long exposure, so that the water has entirely lost its character. Of course, in such a dark spot it would have been impossible to get detail in the rocks and surroundings without over-exposing the water. The only practicable method in such cases is to make two exposures, one for the water and one for the surroundings, and combine them in printing.

516. Thomas R. Hughes. — "A Winding Stream." This is a print showing good technical work and pleasing atmosphere. It contains too much, however. The principal object is the tree on the right, and you have a pleasing vista on each side of this. Trim off the tree and all to the right of it, and about one half inch from the left and you will make a much more pleasing composition. In this case the prominent branches in the foreground should be

504. PORTRAIT FRED E. CRUM

toned down, as they are distracting. The portion trimmed off on the right would by itself make an interesting little picture.

517. J. W. C. **Gillespie.** — "The Calumet." The technical work on this print is in some respects excellent, the clouds and landscape being obtained on the same negative in satisfactory values. The exposure is rather short, however, for the bushes in their immediate foreground, and this dark spot detracts from the beauty of the rest of the print. The print itself seems to be streaked in some manner which we cannot quite explain, but undoubtedly you could make a better one from the negative.

518. M. M. **Knowles.** — Your unnamed print is a transcript of a beautiful spot, and shows good technical work. It seems to us, however, that you might have improved the arrangement at this place. The overhanging tree on the right adds to the effect of the vista, but the leafless branches on the left do not harmonize well with the rest of the wooded landscape. The stumps in the foreground are also too conspicuous. Probably there is some other spot where you might set the camera and get this beautiful distance through a leafy framework to make an excellent picture.

519. **Charles** E. **McKee.** — "Over the Hill." It is a difficult task to make a hill look like a hill in a photograph, and it is almost essential for this purpose to use a long focus lens and photograph from a rather high standpoint. This particular print does not give us the impression of hilliness, as the road looks almost level. In order to make a picture at this particular spot you should compress your material considerably. Trimming off one half inch from the right-hand side, and two and one half from the left would make a much more interesting picture. Your clouds, however, are too strong, especially near the horizon, where the dark patches should be lightened up considerably.

520. Jos. R. **Poole.** — "Scene at T Wharf." This is a famous spot for photographs in Boston, but of all the countless thousands that have been made there, few have risen to the level of pictures. The scene is so confused and crowded that the print is almost always overloaded with details, as is the case here. Your technique is also at fault, the sky being so clogged in development that it is impossible for you to print out the details of the rigging on your boats.

505. TOWARD SPRING HENRY ERIKSEN

506. THE THIEF CARL KREBS

521. L. **Woodin.** — Your print of a waterfall coated in ice represents a scene which was undoubtedly extremely interesting, but is not particularly adapted to make an artistic photograph. The fall being divided into two halves, offers two points of interest, neither of which is subordinated to the other. The introduction also of the discordant element of the figure on top of the rock, and the ugly trestle in the upper part of the picture is fatal to artistic success. The picture could be much improved by trimming three inches from the top.

522. C. S. **Reynolds.** — "Lake Freighters entering Canal." In some respects this is a very interesting print, the atmospheric quality being marked. In composition, however, you have made a serious mistake in having your two boats so nearly the same size. If one were considerably farther back in the picture, the arrangement would be much improved.

523. **Thomas** C. **Barbour.** — "Santa Anna Ford." This picture is under-exposed and over-developed, showing considerable halation at the top, jet black shadows, and chalky high lights. The arrangement would have been much improved had you set your camera farther down or up stream, so as to have it running through the picture in diminishing perspective. The absolutely horizontal further bank is a serious defect in the arrangement.

524. **William** L. **Crawford.** — "Castles of the Virgin." This is a very interesting spot and well worthy of exposing a plate. You have not, however, got the pinnacled rocks in sharp focus which you should certainly have done in a picture of this character. A little more exposure would also have helped out the shadows in the foreground.

525. D. E. **Pierce.** — "What you doin'?" This is a pleasing record of child activities and undoubtedly interesting to the parents

507. PREPARING THE STEW R. L. HUNTER

of the children. Curiosity is depicted on every lineament of their features.

526. A. Schnutenhaus. — "Pear Blossoms." This subject is an extremely difficult one to satisfactorily portray. The contrasts are so great, that loss of detail in the petals seems to be almost inevitable, and this is the principal fault we have to find with your print. The blossoms of the pear or apple branch, also, are usually too crowded to enable a satisfactory pictorial arrangement to be made.

527. G. C. Cleaver. — "Sunlight on the Cliffs." This print seems to be somewhat deficient in values. The snow-clad peak is not pure white nor do any of the shadows attain the deepest tone possible with the paper. A paper with white stock would have been more suitable for this print than the cream paper which you have employed. In the matter of composition we feel that the abrupt hillside occupies too great a space, while the peaks in the distance and the foreground are altogether too much subordinated. A picture which is all middle distance is rarely interesting.

528. Clarence A. Swoyer. — "The Mountain at Evening." The under-exposure of foreground unavoidable with an exposure so late in the evening renders this a rather uninteresting print. It certainly does not give the impression of twilight, as the sky has as much brilliancy as it would have at midday.

529. Roy J. Sawyer. — "The Meadow Brook." If you desire the brook to be the most important object in this picture we would suggest that you trim off at least one half inch or possibly a little more from the top, thereby subordinating the tree and making it balance better the mass of grass in the lower left-hand corner. As you suggest, the brook should be somewhat modified by weakening the highest lights. The negative is worth enlarging and you will subdue some of the contrasts now present in this process. The arrangement seems to be very interesting.

530. Mabel E. Guild. — "Up the Creek." This picture suffers from the common amateur fault of desiring to include too much. You can with advantage sacrifice an inch and a half from the uninteresting trees at the right, and possibly three or four trees at the left, thereby much simplifying the composition. The technical work is good with the exception that the sky is too white, and should have more value.

531. R. C. Gibbs. — "Native Americans." As you suggest, this picture is not wholly in focus. Taken at such short range, when you focused on the squaw, both the papoose and the tepee in the background lost definition. At the same time this would be a satisfactory record if it were printed a little darker and if the papoose's eyes were not so conspicuously turned in the wrong direction.

532. Frank A. Starr. — "Taking on the Mail." This is an interesting record of one of the events familiar to every voyager on the Atlantic. It cannot be said to possess any great amount of pictorial merit, as the interests of the various objects in the foreground are too strong to allow attention to be directed to the mail boat in the distance. A gaslight or platinum print would probably be preferable to the medium you have adopted.

533. Miles J. Breuer. — "Portrait Study." In our opinion the lighting of this picture is too flat, and the eyes too staring. The head seems to be thrown too far forward, and the mass of the hair together with the shadow in the background is rather heavy. The placing in the space is interesting and the profile is good.

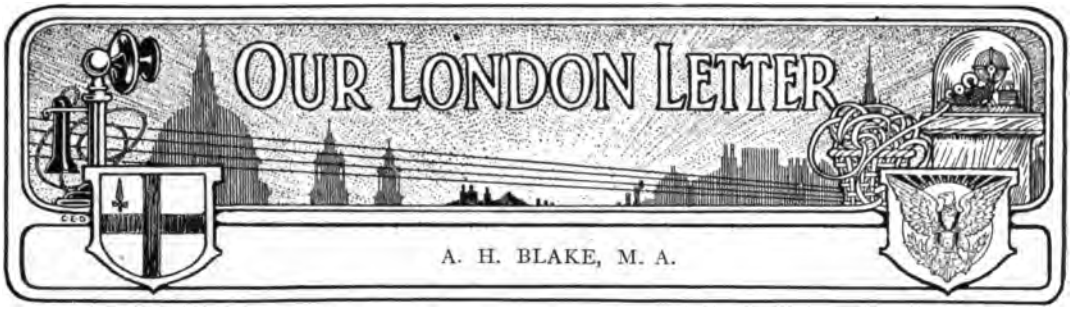
534. H. M. Brooks. — Your portrait of a lady with a book is unconventional in placing, and makes an admirable filling of the space. The work is on the whole very good for home portraiture. There are one or two distracting details, such as the high light on the arm of the chair, the cushions, and the face, which could with advantage be toned down, and the light on the nose should also be somewhat subordinated.

535. A. H. Clark. — "Storm Clouds." Your camera was pointed too high in this picture. An inch of the heavy black mass at the top could with advantage be sacrificed to show at least the horizon line below. Had this been done you would have had a rather good picture of a nimbus cloud, though the exposure seems to have been rather short.

536. J. K. Boyle. — We cannot find much in this picture to warrant its being taken. The rocky pasture filled with scrub does not offer anything attractive and the arrangement of the trees does not show any redeeming quality. The device of bringing the tree in the distance directly between the two branches of the tree in the foreground is especially bad, as it pulls the eye inevitably to this unimportant feature of the composition.

514. THE BROOK GEORGE B. MILES

508. MILDRED F. E. RUTHERFORD



OUR LONDON LETTER

A. H. BLAKE, M. A.

I MUST again impress upon my American readers that their prints will have to be ready for the London exhibitions quite a month earlier this year. I was a little previous in announcing the locale of the R. P. S. exhibition as The Oil Institute, as at the last moment, for reasons into which I need not enter, the arrangements were altered and the Gallery of the Royal Society of Painters in Water Colors taken at 5a Pall Mall E, a gallery well known to Americans, as it has been the home of the Salon Exhibition for some years past. The exhibition will open there on August 20, and will consist of four sections,—the Pictorial, which will occupy the Salon Gallery, and also two other rooms which will accommodate the Color, Technical and Scientific, and Natural History sections.

From this it will be seen that the Trade and Professional Sections will have to be abandoned this year for want of space. Should any of our readers intend to be in England in August they should note that there will be a Press View on August 19 and on the evening of the same day a reception by the president and council, followed by a private view of the pictures. The lecture arrangements will be published later. The selecting committee for the pictorial sections will consist of Messrs. A. H. Blake, M. A., Harold Holcroft, M. A., F. C. S., E. T. Holding, F. R. P. S., C. F. Inston, F. R. P. S., Alex Keighley, Furley Lewis, F. R. P. S., and Arthur Marshall, F. R. P. S., A. R. I. B. A. The exhibition will remain open till September 16 from ten to six and from seven till ten daily. It will be seen that the sending in date, which generally precedes the opening by about three weeks, will consequently come about the first week in August, and will involve the preparation and despatch of American pictures quite early in the summer. I may also add that as in last year's exhibition we only hung two hundred frames and the gallery at Pall Mall is considerably smaller, the reasonable conclusion is that even fewer than last year will be hung, which means a somewhat drastic and searching selection. Exhibitors should send along their best work and not trust to luck in any way, but to hard work and a high standard of production.

The London Salon of Photography shapes extremely well, but there are no new facts to chronicle about it since I last wrote, except that the date of opening will probably be September 2, and it will remain open till October 7. It will be noted that this will mean, as in the case of the Royal, the sending over of the American work certainly a month earlier than usual.

THE FEDERATION OF RECORD AND SURVEY SOCIETIES

I do not know on what lines the record and survey work is done on your side, but over here, at any rate, we have had a great muddle for some time. Much excellent work deserving of all praise has been done, but there has been a great deal of overlapping amongst both societies and individuals. There has been no recognized head or central department. Some men are working quite alone, and many on wrong lines, for want of information and assistance. A meeting was held at the R. P. S. a few weeks ago to consider the question of federating the societies and uniting the individuals and of establishing a central body to encourage and help the work in all possible ways, and to prevent overlapping, by keeping a register of work already done. The scheme met with much favor from those who attended, and it was felt that not only photographic bodies should join, but also the representatives of learned societies, of public libraries, and of municipal and other authorities. The general scheme would be something after the style of the Affiliation of Photographic Societies, of which many of my readers have heard. A provisional committee was appointed to arrange details and lay them before the adjourned meeting.

THE ONE-MAN SHOW OF THE WORK OF E. O. HOPPÉ

We have been particularly fortunate in the matter of one-man shows lately, for after Keighley we get "Hoppé." They are poles asunder as regards method and subject, and yet both extremely good and exceedingly interesting workers. Perhaps Hoppé never showed to better advantage than in this exhibition. It is no small praise to say so, as a one-man exhibition is the ruin of many a pictorial reputation. Perhaps the chief characteristic of the collection is its versatility. So many portraitists get a manner, a set formula of production, and they turn out their work with unfailing regularity on their own lines, and the "manner" of their pictures never varies whatever the "matter" may be. I am sure that this can never be said of Hoppé. Each fresh sitter seems to present him with a fresh problem which it is his delight to solve. I use the word "delight" advisedly, and I believe it contains the secret of his success, as to work with this "delight" in the accomplishment of the best is a sign that one has the root of the matter in one. Rare technical quality is also to be found in his work. He does not seek to hide his technical deficiencies under the guise of pictorialism. The printing, mounting, setting, and finishing of the pictures leave nothing to be desired; in fact, to my taste they are too tidy and careful in execution. "Faultily faultless" they seem, but I can by no means finish the quotation, for it would be undeserved. I wish that I personally did not feel that the very fine technique rather challenged attention and drew it from the delight of the pictures themselves. All kinds of men and women are here depicted, — there is rugged strength, delicate female grace, the head bowed with thought, and the clever eastern type in the person of the Chinese Ambassador to Washington. I hope that Americans may be able to arrange to get this collection over to their side of the Atlantic; as a whole, it would interest them greatly.

SOME NEW METHODS OF EXHIBITING AND JUDGING

The example of the Dresden Exhibition authorities in endeavoring to show not only the pictorial but also something of the other manifold activities of photography seems to influence us over here very slowly, but nevertheless already to an appreciable extent. Birmingham has just had an exhibition on Dresden lines, and I have made it my business to find out from the secretary and the judge how far it was successful. I am pleased to say that not only experts but also the general public have taken much interest in the experiment and have given it their support. The experiment of having a single judge, and that judge not a photographer, has also been tried at this exhibition with success. Mr. Antony Guest, who undertook the judging, is an art critic, and he gave much satisfaction by his awards. In the evening after the judging he gave an address to the members in which he explained the art principles by which he had been guided in his decisions, and also criticized certain individual pictures. I have tried the experiment of doing this on several occasions, and have found it greatly valued, and truly it does seem much more useful to the members for a judge to give some clue to the reasons of his awards rather than simply to write out an award list and depart. Perhaps these suggestions may be useful in the States, and at any rate I am hoping that the personal criticism of the judge will become more general in our own midst, for its usefulness cannot be gainsaid.

SOCIETY NEWS.

AMERICAN LANTERN SLIDE INTERCHANGE. — The Orange Camera Club and the Camera Club Sets of 1910 are now in circulation.

Speaking of the English Interchange Set, Mr. John F. Jones, president of the Toledo (Ohio) Camera Club, writes: "The English Lantern Slides were greatly enjoyed by one of the largest audiences of the season at the Toledo Museum of Art, which included the club of Professional Photographers of Northern Ohio, and were pronounced the best set of slides they ever had the pleasure of seeing. The interiors and winter landscapes were simply remarkable in their pictorial quality."

Clubs desiring to become members of the Interchange may address F. C. Beach, General Manager, 360 Broadway, New York, for particulars.

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THE POSTAL PHOTOGRAPHIC CLUB. — The Album for March, 1910, was issued March 1, 1910. It contains twenty-nine prints. Awards of certificates for prize-winning prints in the Album for June, 1909, are announced, viz.: Mr. William H. Zerbe, of Richmond Hill, N. Y., for print No. 6, entitled "Contentment," First Artistic Merit; Mr. E. L. Crandall, of Washington, D. C., for print No. 2, entitled "Waiting," First Technical Merit. Very many prints are needed for the April Album and the succeeding Albums. About one fourth of the members failed to contribute prints for the January, February, and March Albums, although requested to do so. Under the By-Laws of the club only those members who furnish prints are entitled to receive the Albums and Note-books. Hereafter the rule will be enforced in cases where members fail to heed the call of the secretary by sending prints or furnishing a satisfactory reason for failure to do so. The "Experience Note-book," which was started on its rounds early in April, last year, has been halted, apparently indefinitely, in its progress. The book was sent to a certain member in November last. This member has resigned, and many attempts, both prior to and succeeding his resignation, have been made to induce him to forward the book, but thus far the requests to do so have been disregarded. Efforts to obtain the book will be continued, but at present the prospect of success does not look encouraging.

The Album for April, 1910, was issued April 1, 1910. It contains thirty-one prints. According to latest advices the Albums and Note-books now *en route* are located as follows: Album for November, 1909, and Portrait Album, at N. Y. City; Album for December, 1909, at Bristol Ferry, R. I.; Album for January, 1910, at Boston, Mass.; Album for February, 1910, at Burlington, Vt.; Album for March, 1910, at Syracuse, N. Y. Award of certificate for prize-winning print is announced, viz.: to Mr. Sylvan B. Phillips, of Portland, Me., for print No. 3, Album for July, 1909, entitled "A Veteran of the Shore," First Artistic Merit. Several members of the club contemplate visiting Athens, Pa., about the middle of July next. Your secretary expects to be one of the party. Our brethren who reside in that locality, viz.: Brothers Park, Newman and Fitler, extend a most cordial invitation to the members of the club to participate. A most enjoyable time is anticipated, and it is hoped that every one who can conveniently do so will attend. Further particulars, including dates, etc., will be announced in the Club Bulletin for May.

G. A. Brandt, *Secretary.*

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Toledo Camera Club. — At the March meeting of the Toledo Camera Club, the members were treated to a talk on art subjects by Herbert W. Faulkner, whose paintings and water colors of Venice and the Alhambra are now hung on the walls of the Toledo Museum of Art. Himself an enthusiastic camerist, besides a painter of beautiful things, he had much to say and he said it in such a way that we were able to grasp his meaning. He also judged the prints in the special contest and his criticisms were fine and to the point.

On March 14 the club exhibited the English set of slides, before an audience that completely filled the large gallery. To say that this set of slides is the best, by far, of any yet seen on our screen, is putting it very mildly. Their interiors are marvels of photographic technique and their handling of bright light in dark places was simply wonderful. Their snow scenes are also remarkable. The set of slides from the New York Camera Club were shown the same evening and they too are very good. The two sets of slides demonstrated that the American has better conceptions of what constitutes a good landscape scene.

The Englishman is quite prodigal when he takes a landscape and embodies in one print suffice for three or four prints. Apparently he generalizes, while the American will specialize, confining himself to bits that are interesting and simple enough to hold the attention.

But both sets are worthy of much study by all of our camera clubs as they will be found to contain material for artistic growth.

* * *

The regular monthly meeting of the Boston Camera Club was held on the evening of April 4. Routine business only was transacted at the meeting, including the election to active membership of Mr. E. B. Lewis. After the business meeting the club was entertained for an hour and a half by Mr. Wilfred A. French, editor of *Photo Era*, who talked entertainingly of his travels in Switzerland and accompanied his discourse by stereopticon illustrations, mostly from his own negatives.

The enlarging room has been improved by the installation of a new focusing arc lamp, especially manufactured by the General Electric Company. Some further changes are to be made in this lamp, which will, it is expected, give a much more satisfactory and even illumination than the hand-feed arc formerly in use.

* * *

The Ninth Annual Exhibition of Pictorial Photography of the Wilkes-Barre Camera Club, formerly known as the Wyoming Valley Camera Club, will be held from May 9 to 16. The number of pictures will be limited to 135, in order to maintain the high standard of previous exhibitions. All pictures will be passed upon by Sadakichi Hartmann, who will also award ten certificates to be signed by him. No more than ten pictures may be submitted by one person. They may be framed or not, and transportation charges both ways must be paid by the entrant. An entry fee of 50 cents will be charged each exhibitor. Entries close May 1. Inquiries may be directed to Will D. Brodhun, Secretary, Coal Exchange, Wilkes-Barre, Pa.

THE Twentieth Annual Exhibition of Pictorial Photography of the Department of Photography of the Brooklyn Institute was announced to open Saturday, April 23, and continue one week. Three prizes were to be given for the three best collections of pictures, consisting of not less than four prints, and in addition to the above, six pictures might, at the discretion of the jury, receive Honorable Mention. The collection of pictures receiving first award is to receive a silver cup, presented by the executive committee.

* * *

THE Metropolitan Camera Club, which a few years ago was so active in the organization of the First American Salon, is no longer numbered among the active clubs. It had, however, a number of members living in the Borough of the Bronx, many of whom are still interested in pictorial photography. Some of these members have plans for reorganizing as a club for photographic work, and they would appreciate hearing from any amateurs in the Bronx or neighboring regions who would like to join a camera club. The name should be sent to G. Tushak, 1830 Cruger Avenue, Van Nest, New York City, N. Y.

* * *

THE Greater Montreal Camera Club has recently been reorganized with considerable enthusiasm, thirty-five prospective members having turned out for the first meeting. The club was duly organized and proceeded to look over quarters in a building which was still in the hands of the contractors. Those proving satisfactory, they were leased, and fitted up, and the club is now prospering in its new quarters, which are in the Guy Block, corner Guy and St. Catherine streets. The officers are as follows: president, M. R. Roeder, vice-president, Frank A. Dakin, secretary, H. E. Allen, treasurer, T. B. Longmire. Executive committee, H. J. Gracie, A. E. Dutton, and B. A. Shaw. Membership committee, P. A. Brooks, T. M. Bryson, D. T. Harris, W. H. Brewer. The entrance fee is $1 and the annual dues $5 per year, not an excessive sum considering the benefits to be derived. Every amateur in Montreal should become a member of the club. The club would be glad to arrange for demonstrations and lectures by manufacturers desiring to explain their goods to the members of the club.

* * *

THE Third Annual Exhibit of the Jamestown, New York, Camera Club, was held during the second week of March at the club rooms in the Arcade Building. The collection consisted of 201 pictures, which were selected from a very much larger number submitted. The awards were as follows: —

General Class. — M. C. Nichols, Jamestown Camera Club, "Sunlit Glade"; R. S. Kauffman, Wilkes-Barre, Pa.; "Going to the Field," "Woman with Hoe"; Charles L. Peck, Buffalo, N. Y., "The Path Through the Poplars"; John F. Jones, Toledo, Ohio, "Up the Hill"; John M. Cushman, Jamestown Camera Club, "Shadows of the City"; C. F. Bartlett, St. Louis, Mo., "Shadows"; A. M. Bryson, Montreal, Can., "The Last Load." Landscape Class. — Clare J. Crary, Warren, Pa., "A Swiss Valley." MARINE CLASS. — Clare J. Crary, Warren, Pa., "An Alaskan Sunset." Home Portraiture. — M. C. Nichols, Jamestown Camera Club, "Hope." ANIMAL CLASS. — Albro H. Hooper, Jamestown Camera Club, "Grey Squirrel." Genre Class. — Alexander Parson, Jamestown Camera Club, "Introducing Santa."

In addition to the pictures entered in competition, there were hung thirty-one prints by prominent European photographers loaned by AMERICAN PHOTOGRAPHY.

* * *

The Fifth Annual Photographic Exhibition at Wanamaker's, in Philadelphia, was opened on February 29. Both professional and amateurs were represented, the amateur collection consisting of about twelve hundred pictures, among which prizes to the amount of $500 were divided. The amateur pictures were judged by William H. Rau, William Shewell Ellis, and George M. Harding. Prizes were awarded as follows: —

Landscape. — First prize, H. Crowell Pepper, "The Brook," 695; second prize, R. S. Kauffman, "Landscape," 442; third prize, Harry F. Wittrock, "Awakening of Spring," 1102. General. — First prize, R. S. Kauffman, "The Woman with the Hoe," 436; second prize, J. Alden Mason, "Mid-stream and Smoke," 567; third prize, John J. Prouty, "At the Fountain," 769. Portrait. — First prize, M. Richard Witt, "Study of a Head," 1100; second prize, Charles F. Bayde, "Group," 95; third prize, Florence Stuart Zimmerman, "Dutch Housemaid," 1125. Curio or Speed. — First prize, Wilson Bailey, "Bareback Riders," 15; second prize, H. Crowell Pepper, "An Exciting Moment," 693; third prize, Edward H. Smith, "The Race," 928. Marine. — First prize, Edward H. Smith, "Surf," 919; second prize, James S. Radcliffe, "Harbor Dieppe, France," 771; third prize, J. Alden Mason, "Gray Day on the River," 558. Gum and Carbon Tissues. — First prize, Edward H. Smith, "In Dock," 931; second prize, Florence Stuart Zimmerman, "A Dutch Baby," 1124; third prize, H. Crowell Pepper, "The Harvest Moon," 700. Goerz Lens Prize. — F. Heath, Jr., "Harbor of Menton," 352. Kodak prize. — Frank Seamans, "Sunbonnet Sue," 833. Taylor and Hobson, Cooke Lens Prize. — James M. Bosinot, "Away from the Clamor of the Crowded Street," 65.

The professional exhibition consisted of about four hundred pictures taken during the last fifty years by Gutekunst, comprising nearly every great personage who has lived in or visited Philadelphia from 1860 down to date. Beside these about three hundred other professional pictures were shown.

MR. FREDERICK I. MONSEN, of New York, the well-known Indian photographer, delivered a most interesting lecture before the St. Botolph Club of Boston on the evening of April 6, 1910. Mr. Monsen has spent over twenty years among the Indians of the southwest and has a most magnificent collection of negatives of these people. He has lived among the tribes for months at a time to get the Indians' confidence, and hence has been able to portray phases of individual and tribal life, inaccessible to the average photographer. His lecture was illustrated by most effectively colored slides, and was divided into two parts, the first showing the natural scenery and Indians of the Navajo country, and the second half being on the life and customs of the Hopis. Mr. Monsen's slides were received with enthusiasm and frequent applause, which they well deserved. Before and after the lecture the members of the club had the opportunity of inspecting a large collection of enlargements of Indian subjects which were hung on the walls of the lecture room.

A CAMERA club has been organized at Detroit, Mich., to be known as the Detroit Camera Club. A number of camera enthusiasts met at the Detroit Museum of Art and plans for the organization were set forth. A committee was chosen to draft a Constitution and By-laws; and another meeting was called at which they were discussed and the club was formally organized. The following officers were elected: Mr. W. B. Wilcox, president; Mr. C. L. Warren, vice-president; Mr. Harold Collins, treasurer; and Mr. C. J. Schauer, secretary.

The members engaged in an outing the following Sunday and many pictures were snapped. A subject was chosen and it was taken by each member from what view-point appeared to him the best.

The success of the club is evident from the great interest, spirit, and enthusiasm thus far made manifest. Club rooms with dark rooms and all of the necessary equipment will be obtained as soon as possible. Correspondence with other clubs is solicited. Address Secretary, 82 Harper Avenue, Detroit, Mich.

CORRESPONDENCE.

This column is open so far as space will allow for the expression of readers' opinions on subjects of general interest. The Editors are not responsible for opinions thus expressed.

To the Editor of AMERICAN PHOTOGRAPHY,

6 Beacon Street, Boston, Mass.:

Sir, — The sad intelligence of Dr. John Nicol's death in the last issue of AMERICAN PHOTOGRAPHY has filled me with genuine sorrow. I did not have the great privilege of knowing the doctor personally, but regarded him highly as an authority on the art-science of photography and repeatedly corresponded with him on topics of mutual interest. I particularly treasure a letter that he wrote me when I was a mere tyro in photography. I presume he could be sarcastic upon occasion, but his criticism of the print I sent him was couched in such gentle terms, and yet was of such a practical character, that I have not forgotten the benefit conferred to this day. It is, therefore, with a profound sense of gratitude that I wish to pay this tribute to the memory of the deceased and to record the convictions that AMERICAN PHOTOGRAPHY (and I do not merely mean your periodical in this connection) has sustained an irreparable loss in his decease.

Yours respectfully,

DR. HUGO ERICHSEN,

Editor: Photographic Department, "American Boy."

* * *

To the Editor of AMERICAN PHOTOGRAPHY:

Sir, — I sincerely regret the loss of Dr. John Nicol, who passed away Sunday, March 13, 1910. My sympathy goes to the bereaved.

Dr. John Nicol has always been my ideal in his effort to assist the development of pictorial photography, and there are many pictorialists who will mourn his loss.

Very truly yours,

JOHN F. JONES.

To the Editor of AMERICAN PHOTOGRAPHY:

Sir, — I recently picked up a copy of the January number of the *National Geographic Magazine*, and came across an account of the difficulties of Arctic photography written by Mr. Von Engeln, photographer of the National Geographic Society's Alaskan Expedition of 1909. Some of the points made by the photographer may be interesting to your readers.

The photographer made the interesting discovery that a telephoto lens was not suitable for use on a moving steamer, but a rectilinear long-focus lens filled the bill acceptably. (Query: Must one go to Alaska to learn that property of a telephoto outfit?)

Point two. Alaska being a very rainy country and excessively damp, the woodwork in a camera is liable to swell and get out of line. (Photographic manufacturers in Europe construct cameras of metal so built as to overcome this difficulty.)

Point three. Loading plates under blankets is a clumsy performance and dark room tents sometimes fog emulsions. (There is an institution known as a changing bag which enables one to change plates easily, comfortably, and securely. It costs about 50 cents, can be carried in an overcoat pocket — but its use has not been advertised by film manufacturers. The present writer has used one on a yacht at sea and on a mountain top in the tropics at noon, always with complete success.)

Films in damp weather are not always successful and the photographer was obliged to use plates. (The testimony is interesting, but hardly news to any person who has ever tried to photograph in a very damp country.)

A rather puzzling conundrum presents itself to the inquiring mind as one turn over the pages of that same number and sees the succession of really magnificent pictures of Arctic scenery, most of them needle fine and without the slightest suggestion of atmosphere. (Query — Why eliminate atmosphere from a picture of a country confessedly cloud-laden?)

Finally; let me quote a sentence (from page 58 of that article): "A most convenient method of washing is to place the strip of film or the plates in their carrier, in a bucket or tank, and weight this to the bottom of a pool in a clear, swift-flowing stream." (A really cautious photographer with valuable negatives that could not be replaced might be pardoned if he ascertained beforehand whether the stream were quite clear, not too swift, and if the weight were sufficient to keep the apparatus from capsizing and disappearing down stream, negatives and all.)

Mr. Von Engeln has undoubtedly done some very good work and has surmounted successfully many and great obstacles in photographic work under unfavorable conditions, but it would seem from a careful perusal of his article that he learned several things in far-off Alaska that he might have learned comfortably at home by reading photographic books and magazines and a few experiments in the temperate regions of a civilized community. E. L. C. MORSE.

OUR TABLE.
CHAS. E. DAWSON.

Material for examination and books for review may be sent to Frank R. Fraprie, 6 Beacon Street, Boston, Mass. Any book reviewed will be supplied by our Boston office at the price mentioned.

CAMERA ADVENTURES IN THE AFRICAN WILDS. Being an account of a four months' expedition in British East Africa, for the purpose of securing photographs of the game from life. By A. Radclyffe Dugmore, F. R. G. S. With 140 photographs from life by the author. New York, N. Y., Doubleday, Page & Company, 1910. Price, $6 net, postage 35 cents.

This magnificent volume, one of the finest ever devoted to the results of a photographic expedition, is dignified by a size of page larger than that of this magazine, and consequently adapted to the reproduction of the author's photographs on a very large scale. The typography both of text and illustrations is of the highest grade, and the book is one in every respect fitted to greatly enhance the publisher's and the author's reputations. Mr. Dugmore is a photographer whose achievements are doubtless well known to most of our readers. For many years he has been known as a photographer of natural history subjects. After photographing nature in America, he yearned for wider fields and determined on this expedition to East Africa. The photographs which he took not only fully bear out all published accounts of the abundance of game in these tropical regions, but show the author's skill and courage to be equal to the greatest demands made upon them. Mr. Dugmore traveled a good many miles in Africa, passing through country of various characteristics. He photographed many species of game, and had most exciting adventures, especially with the rhinoceroses and lions. He photographed charging rhinoceroses at distances of fifteen yards or less, and lions at the same distance. It would be difficult to imagine a picture requiring more nerve than that of a rhinoceros charging at fifteen yards. The whole work of the expedition, however, was not confined to photographing such dangerous game, and the book contains many pictures of zebras, giraffes, water buck, impala, hippopotami, and other interesting beasts, as well as pictures of people and scenery. The account of his adventures is extremely entertaining, and the photographic hints and instruction should be of the greatest value to all photographers of animals, whether working in temperate or tropical climes. The only books with which this can be compared are Schilling's volumes on photographing tropical game in East Africa, but the results of Mr. Dugmore's work seem to us to be far more satisfactory, as naturalistic records, than the flash-lights and telephotos of Schilling.

* * *

LAKE VICTORIA TO KHARTOUM WITH RIFLE AND CAMERA. By Capt. F. Dickinson, D.C.L.I., F.R.G.S. With an introduction by the Rt. Hon. Winston Churchill and numerous illustrations from photographs taken by the author. New York, John Lane Company, 1910. Price, $4 net; postage, 40 cents.

Unlike Mr. Dugmore's volume, which was written by a photographer, who used the rifle only occasionally, this book is the story of a sportsman who used the camera to record the interesting phases of his shooting trip. This book is an interesting account of a trip throughout practically the whole length of Uganda, from Lake Victoria to Khartoum, with an account of a Nile journey in addition. The writer describes his experience with many kinds of game, and shows photographs of his trophies covering a number of less-known species, as well as the large game animals. His chronicle again bears testimony to the enormous number of wild animals which are to be found throughout East Africa, a number so great as to be incredible to those who have not seen the country. Captain Dickinson is an expert photographer, and the book contains a very large number of most interesting photographs. Many of these are exceedingly pictorial and show a feeling for composition and an eye for the picturesque which is rarely found in the works of explorers of savage countries. This is a worthy addition to the list of books on Africa.

THE A. B. C. OF PHOTOGRAPHY. By an amateur (Fayette J. Clute). Chicago, Burke & James, 1910. Price, 25 cents.

This handbook, written by our well-known editorial *confrère*, has passed through many editions and is now published from new plates, having been entirely revised and brought up to date. It is a thoroughly comprehensive treatment of the various branches of photography likely to appeal to the beginner, and is excellent value for the money.

* * *

THE LANDSCAPE BEAUTIFUL. By Frank A. Waugh. Illustrated by members of the Postal Photographic Club. New York. Orange Judd Company, 1910. Price, $2 net.

Professor Waugh is an instructor in the Massachusetts Agricultural College, at Amherst, and an enthusiastic photographer. He is a lover of the beautiful in nature, and has made a careful study of landscape and its various aspects, naturalistic, photographic, horticultural, and esthetic. He has traveled widely, read wisely, and observed well. The result of his meditations and observations is embodied in this delightful volume of essays illustrated by photographs more or less illustrative of the points under consideration. The book will have great interest to photographers. and we sincerely commend it to our readers with the promise that its careful study will give them a wider and more sympathetic outlook upon nature.

* * *

KODAK AT THE NORTH POLE. A most interesting and timely book under this title has been published for free distribution by the Eastman Kodak Company, Rochester, N. Y. Those who were fortunate enough to see the Kodak Exhibition which was shown in many places in this country and abroad, two or three years ago, will recollect the wonderful photographs of the Arctic there shown. These pictures were by Anthony Fiala, who commanded the Ziegler Polar Expedition in 1903. A number of these are reproduced in this book, together with other pictures taken by Robert E. Peary and Harry Whitney on their recent polar expeditions.

The story of northern photography has been written for this little book by Mr. Fiala, and both reproductions and story are of the utmost interest at this time. The book will be sent free on application to any of our readers who may be interested.

* * *

SENECA CAMERAS. — This is the title of the first of this season's catalogues to come to our desk. It is a book of eighty pages, excellently gotten up, and with a most attractive three-color cover, portraying a further development of the Seneca Indian family which has appeared on the covers of this Company's catalogue for the last few years. The contents show the whole line of cameras manufactured in the Seneca works, with much information about lenses, shutters, and various other portions of photographer's equipment manufactured or sold by the Seneca Camera Manufacturing Company. A number of most interesting novelties are listed. We might refer at length to them, but the catalogue is of such value and interest to every photographer that we prefer that our readers should see it for themselves. Write to the Seneca Camera Manufacturing Company, Rochester, N. Y., and they will be glad to send you a copy by return mail.

* * *

To THE TRADE: —

We beg to announce that Mr. August Stoeckicht has resigned as treasurer and manager of our Company and that Mr. Fred Schmid, who has been connected with our firm for the past ten years, has been elected to succeed him.

At this occasion we wish to thank you for past favors, and with the general return of prosperity, we feel satisfied that our business with you will also increase considerably during the coming season.

We are prepared to aid you through our advertising department in the sale of our goods and would appreciate it if you would avail yourself of our offer in this respect.

Very truly yours,
C. P. GOERZ AMERICAN OPTICAL COMPANY.
F. SCHMID.

* * *

THE PHOTO CRAFTS SHOPS, operating a number of stores in Racine and Kenosha, Wis., have issued a new mail order catalogue which should be of great interest to every amateur photographer. The catalogue not only gives full information as to the excellent enlargements done by this firm, and their prices for developing and printing, but lists a large number of supplies which are not everywhere to be obtained. The firm specializes in the supplies of chemicals, paper, brushes, colors, etc., needed by workers in gum-bichromate, kallitype, carbon, platinum, etc., and the prices for these supplies seem most reasonable. Another of their specialties is a series of lenses for pictorialists, comprising the monochrome lenses, and the French pictorial lenses. All in all, the catalogue contains information of a character quite different from that of most photographic catalogues, and is well worth obtaining. It will be sent free to any of our readers who may address Photo Crafts Shops, 500 Monument Square, Racine, Wis.

* * *

THE EASTMAN KODAK COMPANY has published a most beautiful portfolio containing a reproduction of the prize-winning prints in their 1909 Advertising Competition, as well as some of the prints which did not win prizes, but which were purchased for use in their advertising literature. Undoubtedly the portfolio will supply many ideas for those who intend to enter the 1910 Advertising Competition. It will be mailed free of charge to any of our readers who may write for it to Rochester, N. Y.

* * *

THE A. M. COLLINS MANUFACTURING COMPANY have issued their catalogue of photographic mounts for 1910. This catalogue contains considerably over one hundred pages, and shows their entire line of professional and amateur mounts, illustrated with numerous half-tone reproductions, which well set forth the character of their most attractive line. If you are interested in mounts, write to the A. M. Collins Manufacturing Company, 262 Columbia Avenue, Philadelphia, Pa.

* * *

OUR English contemporaries, *The British Journal of Photography*, *The Amateur Photographer*, and *Photography and Focus*, have all celebrated the advent of spring by special numbers. On March 8 *The Amateur Photographer* produced its Empire number of 126 pages, most excellently produced and illustrated. A large part of the number consists of illustrations printed in black and colors on art paper, the feature being a double page reproduction of a most magnificent marine by F. J. Mortimer, F. R. P. S., the Editor of the paper. Few such magnificent records of a tumultuous sea have ever been made by the camera and we congratulate the maker most heartily on his achievement. The print from which the reproduction was made was exposed and developed simultaneously by Mr. Mortimer's new process, which we have reprinted in this issue. A noteworthy feature of this number, and also of *Photography's* spring number, is the four-page advertisement of Messrs. Wellington & Ward, half-tone reproductions of pictures made on Wellington plates.

Photography and Focus issued a bumper number containing 140 pages, by no means as well printed as that of *The Amateur Photographer*, but still a most attractive and valuable issue.

Last but not least was the Colonial Number of the *British Journal of Photography*, a special issue which is circulated annually throughout all the English speaking countries of the world to boom photographic trade. This issue, extending to 120 pages, contains a most excellent review of the various types of camera and apparatus manufactured by leading English firms, and undoubtedly well served its purpose as a stimulator of trade. American advertisers are well represented in this number, no less than seven pages being taken up by them, including a full page advertisement of AMERICAN PHOTOGRAPHY.

* * *

THE Obrig Camera Company, one of the progressive stock houses of New York City, has just issued a catalogue of photographic materials and supplies. They will be very glad indeed to send a copy of this catalogue to any of our readers who may see fit to ask for it. If at the same time you will add 20 cents, they will enter your subscription for one year to *Photographic Topics*, their interesting monthly journal, which they say is filled with good news and good advertisement from good people for good people.

* * *

Messrs. Kahn & Co., opticians and photographic dealers, whose place of business is 194 Broadway, near Fulton Street, New York City, advise us that they keep in stock domed stag foot brushes such as are recommended for oil printing by the principal authorities on this subject. These brushes can always be obtained from Kahn & Co. at moderate prices. We also find that Messrs. Houghton & Dutton of Boston have in stock in their art department brushes of this character. It is probable that other dealers in artist's materials in the United States carry these brushes, which are necessary for oil and bromoil work.

PROFESSIONAL NOTES.

Mr. W. H. Partridge, a well-known Boston photographer, held an exhibition in his studio late in March, which was attended by many of his friends. The following notice is clipped from *The Boston Globe:* —

"Most Bostonians know W. H. Partridge as a photographer only, and a majority of those who attend his one-man exhibition in his "home studio" at the corner of Westland Avenue and Hemenway Street, which will be open from one to five every afternoon next week, will be surprised to find that the paintings outnumber the photographs ten to one.

"The artist has been catholic in his tastes, and has painted almost every conceivable sort of subject. Portraits done with a Dutch fidelity of detail, still life of splendid color values, landscapes, animals. Mr. Partridge has recorded his impressions in many lands and under many conditions, always with a sort of grimness that is by no means without its appeal. He sees color with a somewhat cold eye, which is not unpleasant in these days of 'a higher key in painting'; his sentiment, too, is apt to be cool rather than tender or glowing.

"The best of his paintings is a sunset seen across Boston Common from Tremont Street, although there are half a dozen landscapes that make one look twice. The portraits, perhaps, are the most satisfying, taken as a class.

"The photographs are enlargements from negatives made all over the world, in Greece, Rome, and Cairo, in Sitka and in Egypt. All of them are artistic, and all interesting, but by far the most attractive and incomparably the most artistic is a photograph of a scattered flock of sheep feeding on the slope below the Acropolis at Athens.

"Another, the effect of which is somewhat marred by an elderly man wearing a derby hat and a shawl, shows a group of people and ranked kneeling camels, outside the gates of Damascus. There is an unusual view of the Sphinx, which has become familiar through its reproduction in three colors."

* * *

Flashlight workers will be pleased to learn that the manufacturers of the popular Victor powder are now filling all orders promptly and that the interruption in its supply, owing to an accident, was quite brief.

They also inform us that in future it is to be made in a building especially erected and equipped for producing the most perfect product in its line, as well as securing the greatest safety to those who compound and put it up.

It gives a great sense of security to those who use this article to know that it has never been known to ignite either by friction or concussion. Also, to realize that it gives the required actinic light with such a very small quantity.

* * *

A Sterling Silver Loving Cup, doubtless the most beautiful and intrinsically the most valuable prize ever offered by the Photographers' Association of New England, is open to the world for competition, without entrance fee, at their convention in Boston, July 26, 27, and 28.

Realizing the amount of labor and expense involved in preparing and forwarding an exhibit, as a matter of courtesy, the association will show its appreciation by issuing to each exhibitor in the art department an "exhibitor's certificate," suitable for framing.

Full particulars regarding prizes and program are being sent direct to New England photographers and may be secured by others interested, from Mr. George H. Hastings, secretary, 37 Merrimack Street, Haverhill, Mass.

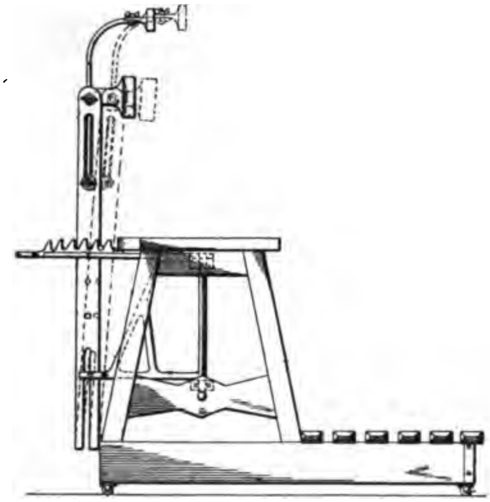
RECENT PATENTS.

CHAS. E. DAWSON.

Abstracted by F. C. Beach. Copies of any of these patents may be obtained at 10 cents each from Munn & Co., Patent Solicitors, 361 Broadway, New York City.

February 1, 1910

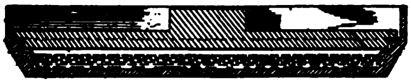
947,909. PHOTOGRAPHER'S CHAIR. Clinton E. Hermon. Columbus, Ohio.



Upon a movable platform is mounted a stool-shaped seat, having a vertical rod between the under part of the center of the seat and a brace below which forms a pivot and support for the upright adjustable body and head rest. A rack extends rearward for the purpose of allowing the upright body rest to be adjusted at different angles or inclinations. The whole can be adjusted horizontally or laterally to support the body and head of the subject, at one side or the other, according to the desired pose. It appears to be a simple and effective arrangement for the purpose intended.

February 1, 1910

947,942. PHOTOGRAPHIC TRAY. Waldo G. Rice, Edison Park, Ill.



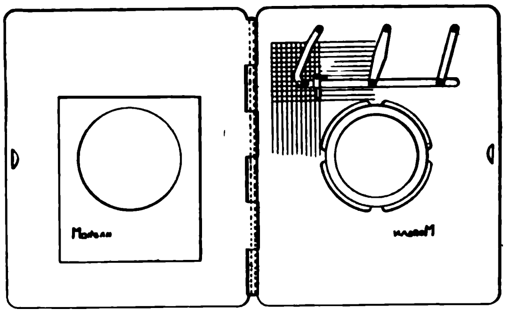
The tray as shown in the sectional view is made with step-shaped ridges around its lower corner, in which are small grooves for the admission of developing and fixing solutions. A cover fitting the interior of the tray snugly is set into the tray with a rabbet edge to overlap the top ridge. Slight projections rise above the bottom of the tray to support the back or glass side of the sensitized plate. The method of operation is as follows: The tray is placed on a table or other support within a changing bag or under an opaque flexible covering, then the cover of the tray is lifted out, the plate holder with the exposed plate is placed within the covering, the plate is removed and dropped into the bottom of the tray, film side up. The cover is now placed in the tray by a handle in the center and the whole removed from the opaque covering into daylight. The developer solution is poured over the cover of the tray and gradually falls through the several small channels below, covering the plate. A slight rocking movement is given the tray. After the time of development is up, the tray is held inclined till the developer is drained out. Then the fixing hypo solution is poured on top and falling below, fixes the plate. After a short time the cover is removed and the developed and fixed negative is lifted from the tray.

947,965. COLOR PHOTOGRAPHY. Frank L. Dyer, Montclair, New Jersey.

The process appears to be a modification of the Lumière autochrome plate. Celluloid or collodion is prepared, and discharged in liquid form, into an electrically polarized field through the medium of a high tension electrical current, which evaporates and disintegrates the collodion into very fine transparent particles. These are then subjected to intense cold with liquid air and are frozen hard. In that state the particles are crushed, and because of their brittleness extend laterally. They are then colored by dyes, the red, green, and blue, of the tri-color process, and sifted over a transparent surface in the respective proportions, forming a basis over which the sensitive emulsion may be flowed, and through which the light will act as in the Lumière method. We presume it is intended to use this method in the manufacture of flexible films for color photography.

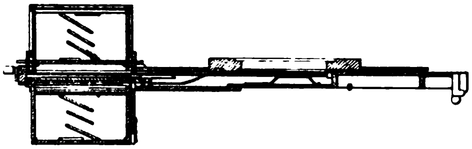
February 8, 1910

948,867. DEVICE FOR USE IN CONNECTION WITH THE DRY MOUNTING OF PHOTOGRAPHIC PRINTS OR THE LIKE. George W. Wilson, Deceased, W. Alexander, and R. M. Morgan, Executors, Aberdeen, Scotland.



The device consists of two rather thin metal plates hinged together at one side. The upper plate carries the hollow die, the lower plate the matrix die projecting above the surface. Around this die are radially adjustable clamps for holding dies of different diameters. To the right of the die are guides for regulating the position of the die for a given subject. The print to be mounted is laid face downward on the projecting matrix die with a film of thin material between it and the die. The matrix is hot. The mount is adjusted in position by the guides shown over the print, the back of the latter having previously been sprinkled over with dry paste powder, then the mount is placed over the coated print, and the upper die or plate is brought down with considerable pressure. The heat of the matrix die causes the dry powder to soften and gradually cement the print to the mount. The print is embossed around its edges.

948,868. CAMERA ATTACHMENT. Garfield A. Roberds, Olathe, Kansas.



The sectional view shows on the left two boxes or magazines opposite each other, having spring pattens pressed on the interior for feeding forward sensitive plates enclosed in casings to prevent the scratching of the film surface of the plate. To the right of the boxes is a ground glass frame, for focusing. The attachment is made in one part secured to the rear of the camera in place of the ground glass frame. The object is to avoid the use of separate plate holders. After the image is focused, a peculiar shaped sliding bar is manipulated by the hand at the extreme right end until it catches a plate carrier, in the supply box at the left, then the bar is worked forward at the right end until it brings the plate carrier in position behind the lens. The shutter is worked, exposure made, and the exposed plate in the carrier is pushed to the left until it passes into the receiving box at the left, located opposite to the supply plate box. In this way exposures may be made in quick succession. It appears to be a simple, effective arrangement for the purpose intended.

948,939. PHOTOGRAPHIC CAMERA. John E. Thornton, Altrincham, England.

The principal feature of this invention consists in taking a single sheet of thin light metal, like aluminum, decorating it on one side to resemble leather, wood, or other material, and bending it into a rectangular form by means of dies, presses, and similar mechanism, and securing the ends of the metal by bending into a flange so the whole will become, almost at one operation, a camera box, with a compartment at one end for the plate and the other end for holding the lens and shutter. When adapted for the folding style of camera the front lens holding portion is formed into a separate rectangular section, connected by a flexible bellows to the rear metal part.

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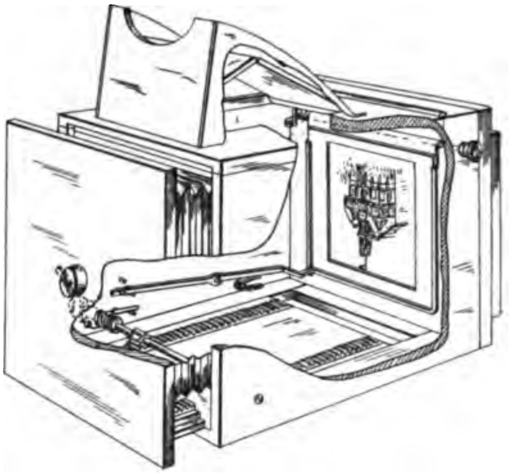
948,942. PHOTOGRAPHIC CAMERA. Joseph Gaut, Leichhardt, New South Wales, Australia.

This camera is made in the form of a hand camera, but it is capable of being supported on a tripod. A peculiarity is that there is no focusing ground glass employed, but in place of that is used a hinged leaf or plate having a whitened surface which is located directly in front of the sensitive plate. The upper end of the plate is rigidly attached to a transverse shaft having at the left end an actuating spiral spring. At the lower left corner of this hinged plate is a slight projection which abuts against a release pivoted lever. Over the top of the camera is raised a viewing hood. In the front portion of the camera is the usual focusing knob attached to a rod which passes transversely through the camera and moves the lens board base supporting the lens, in or out in the usual way. The operator, in focusing, places the rear of the camera against his breast, and then lowers his head down upon the viewing hood, looking backward at the reflected image on the whitened hinged plate. The image appears to be in a non-reversed position.

After the focus is obtained, it is necessary in making the exposure to first advance the lens forward the thickness of the focusing plate



in order to have the image on the sensitized plate accurately sharp. Behind the focusing plate is located a curtain shutter, and back of that is the sensitized plate.

The operation is as follows: after the focus has been obtained and it is desired to make an exposure the operator manipulates a lever on the front of the camera which advances the lens a short distance and trips the release lever holding back the focusing plate, allowing same to quickly fly upward and close the viewing aperture at the top. At the same time the focusing plate flies upward, the shutter mechanism is released, and the exposure is made. The focusing plate is reset again by a knob on the right end of its shaft. There are other details it is not necessary to explain.

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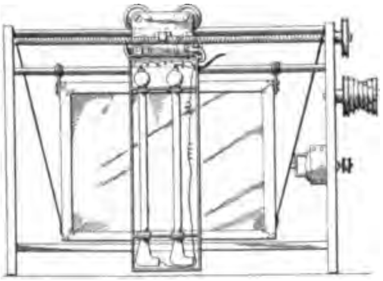
949,084. BLUE PRINT MACHINE. Aristides R. Murray, Cincinnati, Ohio.

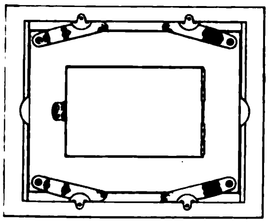


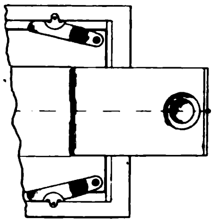
On an upright frame from two longitudinal parallel bars are hung frames for holding tracings for reproduction by the blue-print process, the glass sides of the frames facing inward. Between the frames are located the Cooper-Hewitt electric lamps for illuminating the frames. They are supported in a box which travels over a central rod between the two supporting bars previously mentioned, and have a hinged nut which rests upon a revolving screw rod. On the right end of the rod is a pulley which is connected by belting to an intermediate cone pulley below, and this, in turn, is connected by a belt to an electric motor attached to the right end of the frame. The object of this construction is to provide means for constantly moving slowly the illuminating lamps lengthwise between the two printing frames in order to produce an even exposure over the entire surface. After the exposure, the printing frame is raised into a horizontal position and supported on a table for the insertion of another tracing.

949,110. MOUNT-TRIMMING MACHINE. Charles H. Cadieu, Boston, Mass.

In general this machine is designed to more accurately trim the mounts of photographs than has previously been done. The mount board is held in a horizontal position and is passed through the machine in such a way that the knives cut it accurately, leaving the mounts in their natural condition. The inventor states that by this method there is no bending of the mounts as when a large cylinder is employed, and enables mounts composed of double sheets to be practically cut out without weakening the sheet or ply, and without breaking the mount. The machine is especially valuable in cutting out two-ply mounts without injury to the same.

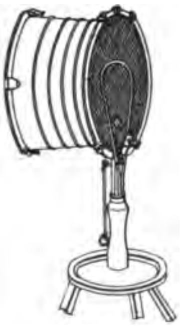
949,125. PHOTOGRAPHIC PRINTING FRAME. David J. Lindsay, Newton Highlands, Mass.





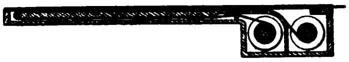
The larger illustration shows a solid back of a printing frame secured in position over a negative by four pivoted spring levers or fingers. Within this solid back is another aperture with a small back to press against the paper, which has spring hinges and a projection on the opposite end for entering a vertical spring finger. This aperture is the size, say, of a cabinet photograph. When the negative is once placed duplicate copies can be quickly made. To open the door, it is only necessary to pull back the metal spring finger on the left end; the spring hinges on the rear immediately raise the door a short distance so that it can be quickly turned back. The lower illustration shows the door turned back and on the right end is a pneumatic cup which depends slightly below the under surface of the door. The object of this pneumatic cup is to raise from the negative the paper which has been exposed in order to enable it to be easily removed. It appears to be quite a simple and effective method of removing the paper.

949,198. FLASH-LIGHT DEVICE. Alexander Robbins, Pittsburgh, Pa.



The idea of this invention is to provide a compact flash-light smoke-retaining device, which prevents the smoke from passing into the room. On a stand or pedestal is supported an upright support from which projects a metal bow-shaped piece which supports a circular metal ring that carries a wire gauze, back of which is a disk of asbestos. The rear section of the telescopic portion of the device is secured to this asbestos disk ring by spring clamps. Within the chamber at the rear is located a reservoir for holding the flash-light powder which has a fuse that comes out at the bottom to contact with an alcohol lamp, or electric device, as may be desired. In front of the lamp is a wire screen to prevent the sparks from flying forward and striking the cloth disk which closes the extreme front. This ring holding the cloth or the diffusing medium is secured to the front section of the lamp by little spring catches. After the telescopic sections have been extended and it is ready to make an exposure, the operator simply lights the alcohol lamp and pulls the pivoted supporting lever by the ring at the bottom which brings the lamp in contact with the fuse and makes the exposure. In other cases a flash-light torpedo can be substituted for the lamp. There is also an ingenious detail in the back ring of the lamp which contains apertures in a circle covered on the outside by light springs. The object is to let part of the gas out through these apertures by forcing the springs outward at the time the flash-light explosion occurs, acting somewhat as a relief valve. The apparatus is quite portable and may be easily carried from the room to the exterior air for discharge of the gases.

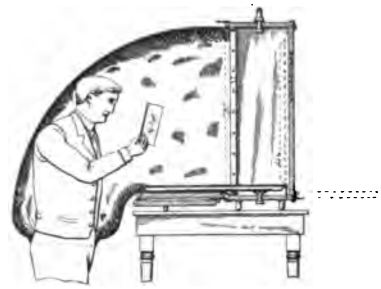
949,450. FILM ROLL HOLDER. John H. Scotchmer, Chicago, Illinois.



The feature of this invention is in placing the film supply, and film receiving rolls, in a compartment at one end of the plate holder and in having a slide that can be drawn to make an exposure the same as with an ordinary plate holder. The film passes from the right-hand spool, underneath the exposing slide, then round a roller at the extreme left, then underneath the dividing septum, back to the left-hand winding spool in the receptacle. There are devices for unlocking the spools so that they can be readily inserted and removed much on the same plan as the well-known kodak apparatus.

February 22, 1910

949,971. PORTABLE PHOTOGRAPH DARK ROOM. William E. Buckley, Chicago, Ill.



The illustration shows this dark room opened for operation. It is a box something in the form of a suit case, having on one of its broad sides a window in which is inserted a ruby glass, and on the other broad side is a middle hinge which allows that side to be folded underneath itself. In the bottom and top of the box are ventilators constructed in such a way as to admit the air but exclude the light. Folded up against the interior front wall on the right is a flat tray or plate for the purpose of holding developing trays, etc. In operation the front door on the right is opened, the flat tray is pushed down to the floor of the box, then the plates, developing trays, and solutions are inserted. Then the front side is closed, and the hinged side on the rear is turned down on the table, and the hood is drawn over the upper portion of the body of the person, an elastic band holding it securely round the body, which enables the operator to carry on the operation of developing, as shown in the illustration.

Camera Notes

ORGAN OF THE

CAMERA CLUB OF NEW YORK

121 West 68th Street

MAY, 1910

Officers: *F. S. Hastings, President; F. Scott Gerrish, Vice-President; Frank M. Hale, Treasurer; Monroe W. Tingley, Secretary; James Stanley, Assistant Secretary.* Trustees: *Harry Coutant, W. H. Close, Willard P. Little, Frederick C. Beach, F. Benedict Herzog, J. Walter Righter, Maximilian Toch, Arnold Wood.*

Sixth Annual Dinner. — The dinner was held at the Brevoort House, corner of Fifth Avenue and Eighth Street, on Saturday evening, March 12, and was a most successful and entertaining affair. There were between forty and forty-five covers laid, somewhat more than on previous occasions. The president's table with invited guests was located at one end of the room, and in place of the usual long tables some eight or ten round, and small square tables were equally distributed around, making the dinner quite an informal but jovial function. Mr. F. S. Hastings, the president, acting as toastmaster, after the dinner had been served, opened the informal discussion. Among the speakers were four ex-presidents of the club: Mr. Crosby, Mr. Berg, Mr. Herzog, and Mr. W. D. Murphy. The latter gentleman entertained the diners in a most interesting way. An exhibition of queer but amusing lantern slides, prepared for the occasion, was given, and the distribution of framed photographs by numbers drawn by lot from a hat concluded the principal features.

Mr. W. E. Wilmerding, chairman of the Dinner Committee, provided a printed menu containing a different photographic print for each person.

Lantern Slide Exhibitions. — On the evening of March 18 the 1910 slides of the Orange Camera Club were exhibited. The set was composed mostly of views in and about New York City, and as a whole were of very good quality.

On Friday evening, April 1, Mr. Malcolm Stuart, a club member, gave an illustrated lecture, entitled "Climbs in the Canadian Rockies," and a very entertaining lecture it proved to be. The pictures were made by himself and represented much difficult work. Mr. Stuart exhibited the shoes, waterproof cloaks, mountain climbing picks, staffs, ropes, and carrying sacks that are used for this kind of work, and explained their different qualities and features. His route followed the Canadian Pacific Railroad inland and east from Vancouver to Banff. He explained the method of climbing over the steep, ice-covered mountains, and showed remarkably fine pictures of glaciers, and numerous mountain peaks that were fully seventeen thousand feet in height. The region that was most charming was around and about Lake Louise and Emerald Lake. One view of a twin fall about seven thousand feet high was a very beautiful picture. Others were of colored flowers growing on the mountain-side. Mr. H. P. Rowley operated the club lantern most satisfactorily. There was a full house present and many ladies. Altogether it was a most enjoyable and instructive exhibition. The slides were uniformly good.

Board Meeting. — The regular monthly meeting of the Board of Trustees was held on Tuesday evening, April 5, with a large attendance. President Hastings brought up various matters for consideration. The treasurer's report showed the usual good working balance.

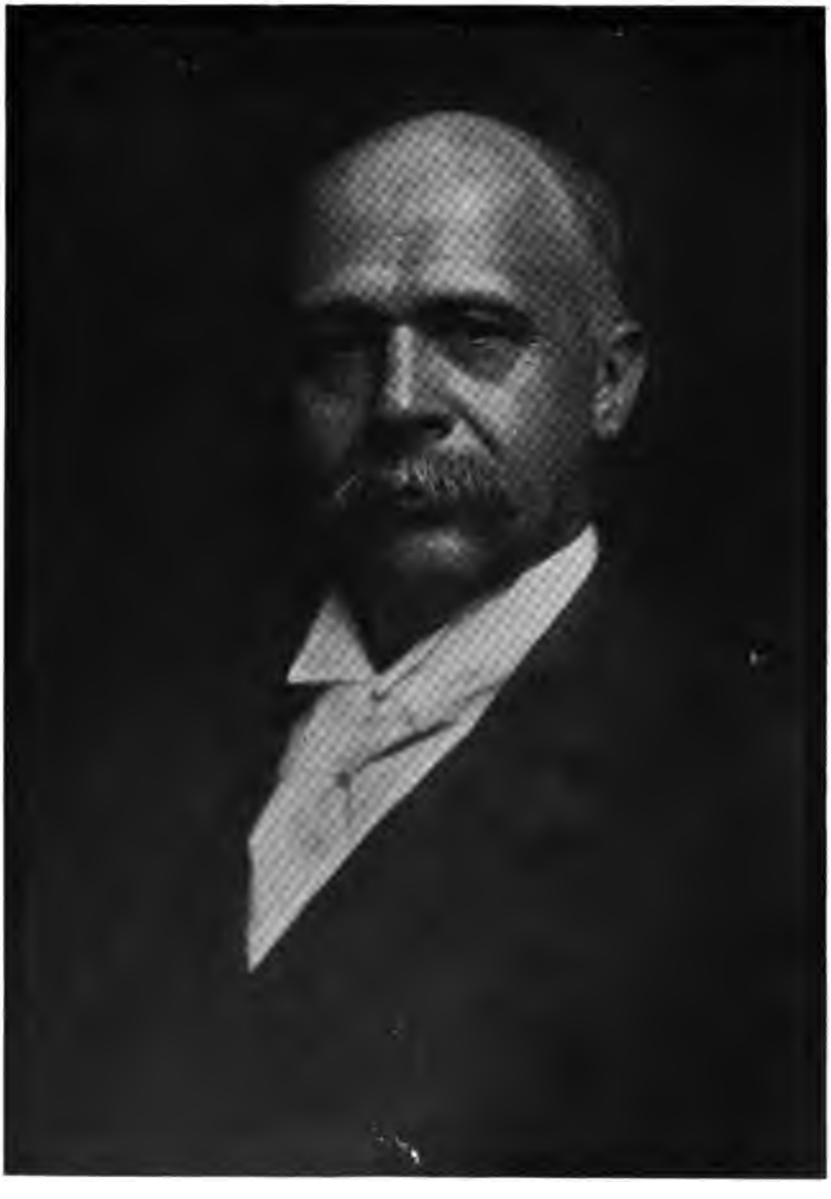
Dr. W. S. Reynolds was elected an active member of the club.

Mr. Maximilian Toch, chairman of the Print Committee, announced that the annual members' Print Exhibition would open on Saturday, April 9, with a possible afternoon tea and print exhibition.

The Members' Print Exhibition. — This exhibit covers about one hundred and fifty prints contributed by the members. A more detailed description will appear in our next issue.

AMERICAN PHOTOGRAPHY

VOL. IV. JUNE, 1910 No. 6



FREDERICK C. BEACH, PH. B., Editor *American Photography, Scientific American*

HISTORIC COSTUME

From Elizabeth to Victoria

with Reference to its Pictorial Possibilities

By Chas. E. Dawson

Illustrated with Photographs by Elwin Neame

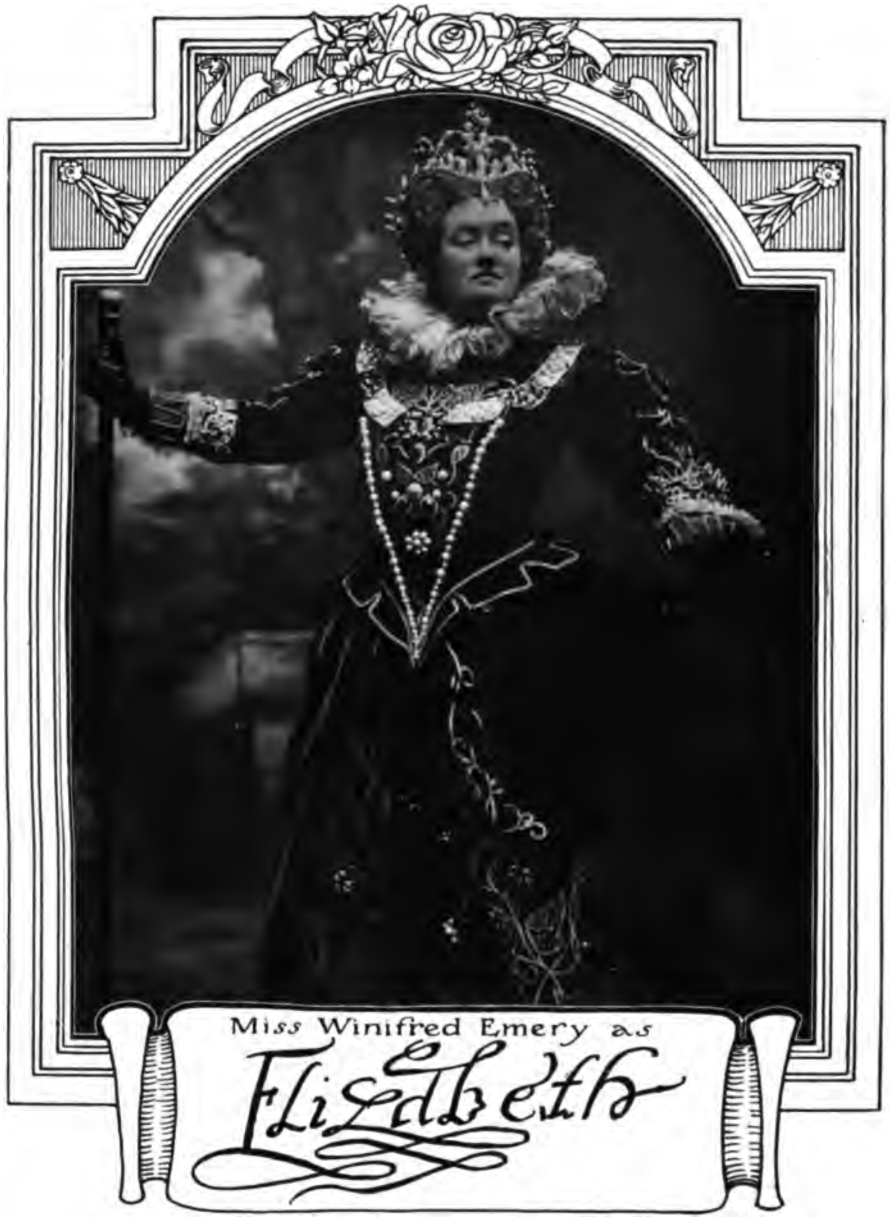
WE find, every little while, historical or subject pictures in the exhibitions and in the papers about which the art critic writes of what he calls their "unconvincing atmosphere" or "feeling." Now the professional art critic has his use in the scheme of things, although when writing about photographs he often makes as many "bloomers" — to borrow a word from Fleet Street, — as the youngest member of the rawest camera club.

The trouble with most critics of photographic pictures is that they don't know enough about photography, and the bother with most pictorialists is their scant knowledge of costume. The "unconvincingness" of many historical pictures simply means that the man behind the camera has not given sufficient thought to the costume of the period exploited. By a little study of historic costume a man will have his model dressed in clothes that "look right," and to look right is, pictorially, to be right. The study of old clothes leads to a knowledge of old-time men and women, till, little by little, one gets a notion of the mood as well as the mode of a period, for *autre temps, autres moeurs*, and the more a man knows of a subject, the better he is likely to render it.

The last three or four centuries of English life and literature have become so intimately woven into the fabric of latter-day romance, through the medium of books and records, that from sheer familiarity we have become more or less unconscious of their existence. Mention Walter Raleigh, Queen Elizabeth, Cromwell, or Charles the First, in front of any group of educated men or women, and at once they "take you" — follow your line of thought as readily as if the topic were a mere scare line from the morning's paper. The great "costume" periods of the past are always topical because they belong to all time. It is just this arresting quality — the charm of other days — which makes for the popularity of a good "period" play or picture. We are all more or less aware of the subtle glamour of the ages, yet unless one takes a little trouble to get a few of the facts right, one flounders around seeking refuge for lack of real knowledge, by describing anything worn before last summer as "medieval"!

The history we had forced upon us in our youth is mostly forgotten at the earliest opportunity, and the history we get in after life — when not too busy making it! — is necessarily less systematic. He who has but a hazy view of its facts may manage to worry through the difficult places of an after-dinner conversation without conspicuous discredit to himself or his college, but it is a different matter when arranging the details of a dress before the tell-tale camera.

There is no more illuminating or amusing hobby than the cult of costume and the collection of old engravings, books, and even magazine articles on the subject. Real old dresses may be sometimes found, to the joy of the collector, reposing as keepsakes and heirlooms in the chests and presses of countryside farmsteads. It is better to study one reign or phase of society than many. The time and days of Cromwell are likely to yield more satisfaction than an attempt to embrace the huge expanse of time from, say, Eve to Maud Allan. Nothing photographs, or for that matter paints so well as an old costume (the older it is the better), and for that reason I advocate



AN ELIZABETHAN COSTUME
ELWIN NEAME, LONDON

the "old clo" quest as a pleasing spare time occupation. A little foraging around, a little luck, and the novice will acquire his first old costume. The man of small means will not find himself out of the running, for costume collecting has not yet become the mania of the millionaire, but is the quiet sport of proverbially poor artists, and therefore the old specimens that we may find are pretty sure to be genuine, the dealers and their "antiquity-fakers" being too busy making old masters, furniture, china, pewter, etc., for the *nouveaux riches*.

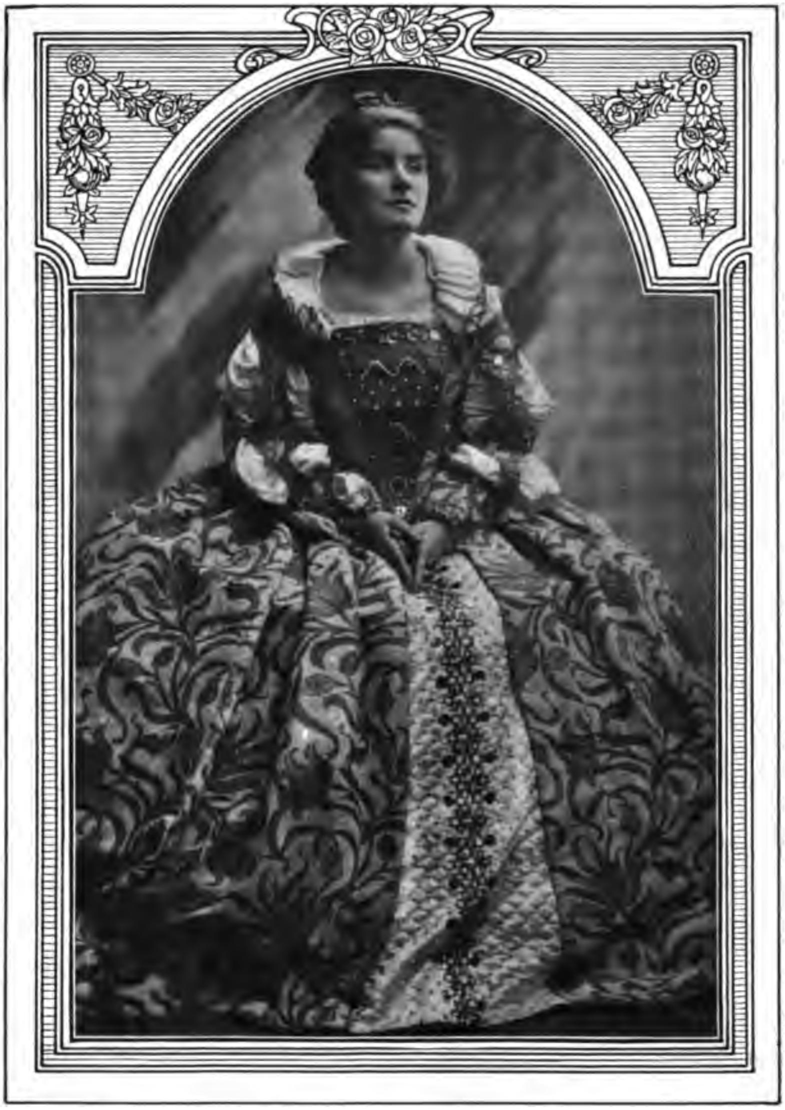
Even when old costumes cannot be obtained, replicas can be made from old prints. The artist of previous centuries who was too busy or too poor — usually the latter — to have an old costume for his model — had one made of cheap sheeting upon which he stenciled the pattern. But we need not go to that labor to-day, for the enterprise of the manufacturers has furnished us with copies of well-nigh every notable fabric since the time of Richard the Third, when the splendid pine-apple, rose, and other patterns of the Tudor period began. Within the space at my disposal I propose to offer a brief survey of some of the most pictorially useful costumes from the days of Queen Elizabeth to Queen Victoria. And as in the majority of costume pictures the feminine interest is dominant, I have cut the subject in half — not to say the better half — and dealt almost exclusively with the fair sex.

It is said that "clothes make the man," and I should like to add that women's clothes may easily break him. Ever since Elizabeth women have been the limit so far as finery is concerned. Kipling's synopsis of "a rag, a bone, and a hank of hair" is far too sketchy to represent women, although he is said to have had Mrs. Patrick Campbell, slimmer then than now, in mind when he wrote it. For this article I am fortunate in having a series of studies by Elwin Neame, the young photographer whose work is among the most promising in London. Young Neame assembled in his studio in West Kensington a range of many old costumes, a few intelligently made replicas, and some actresses who knew how to wear them — and look the part!

From the picture-making point of view Elizabeth's is one of the earliest of the costume periods that are profitable to study. Incidents and subjects before the seventeenth century seem too far back and nebulous to enlist the fullest sympathies of the public, but the glorious days of Elizabeth, with their romance and splendor, appeal to all who have English blood in their veins. The Queen herself set the pace in esthetic activities and introduced a greater number of fashions than any other Englishwoman. She was born to pull the strings of the costumiers, to drive them to the limit of their inventive and productive capacities. She is said to have introduced ribbons, pins, corsets, and tight lacing, and disported herself in "bombazines," a silk and cotton mixture made for her at Norwich, bone-lace from Honiton, cambric from Cambrai in France, and calico from Calicut in India; in fact, the whole world was ransacked to bedeck her person and her Court. She had a pretty taste in wigs, her favorite being a nice, quiet crimson! Nearly three thousand dresses were made to her order, and she would have cut a considerable dash in Chicago if she were alive to-day.

Her character, as revealed from her handwriting, confirms her actions, for her signature, unlike Shakespeare's, was eminently legible and surpassingly decorative; in fact, it is even more spontaneously beautiful than Walter Crane's. I have made a copy of her autograph which Arthur Marshall, F. R. P. S., photographed from a document we found in a little old town tucked away in a remote bit of Holland. The almost inordinately elaborate pen movement under her name indicates her great self-esteem, the upright and angular letters will-power, and their great height considerable pride, while the whole shows a sense of design Will Bradley might envy.

Miss Winifred Emery's recent impersonation of her enterprising Majesty at the Lyric Theatre, by its accuracy of costume and detail won the praise of both artists and students. The skirt in those days was more fearful and wonderful in structure than many things turned out in Paris to-day. It spread from the hips in a slight angle — almost horizontally, in fact — till it reached



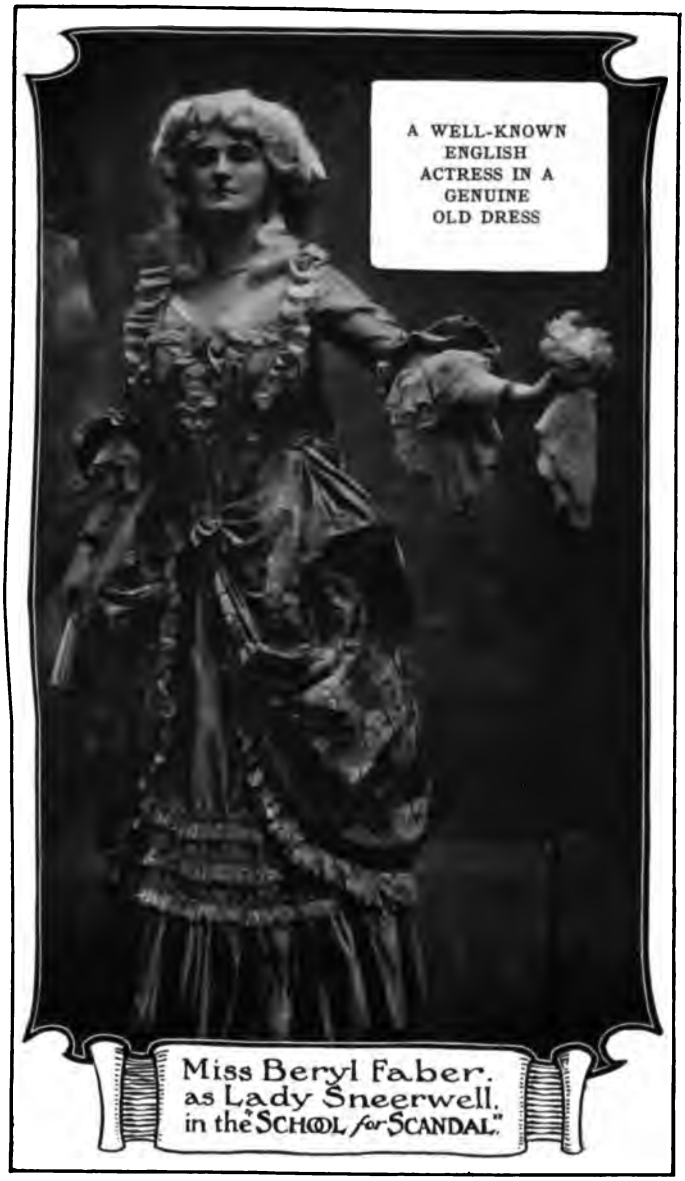
A MODERN REPLICA OF A FINE OLD TUDOR COSTUME
ELWIN NEAME, LONDON

a hoop of wood or whalebone, about half a yard away from the mainland, as it were, whence it fell almost vertically to the ground. This hoop — the farthingale — was lashed to its moorings by ribbons around the waist. The true Elizabethan skirt effect can only be obtained by this method, though I have seen artists try to simulate the effect by piling petticoats on to the model, à la Dutch peasant woman, but I've never seen them made to "look right" except by using the above correct expedient.

Next to the farthingale in prominence is the ruff. Originally of Spanish origin, transplanted on to English soil, it flourished in more ways than one. So great was the variety of size and form of these ruffs that home-made ones for studio use can easily be fashioned out of almost any thin, white material. Elizabeth's ruffs were usually edged with lace, they were made to stick out by a device called an "under propper." She was therefore mightily pleased when her coachman's wife introduced the use of starch as a stiffener. The good woman was promptly promoted to be the "Lady High Mistress of the Laundry." The starching did away with the need of the weighty under propper, and ruffs were worn so big that their wearers had to be provided with extra long-handled soup spoons. In court circles the ruff was known as a "piccadell," and the greatest novelties were sold by a certain ingenious Mr. Higgens, a "tailor and purveyor of piccadells to Her Majesty." His shop was situated in St. James's Street, and gave the name to the best-known and luxurious street of London — Piccadilly. The piccadell, very much as worn in the sixteenth century, may be seen to-day in the streets of England as part of the traditional garb of the itinerant Punch and Judy Show, and in the pierrot costumes of the "Follies," our leading vaudeville entertainers. The time-worn cover design of *Punch* — that venerable weekly of alleged humor — is also Elizabethan in costume. Although Punch does not sport a "piccadell," yet his dog Toby does, and Punch's "peascod-bellied jerkin" is true to the days of Shakespeare. The pretty custom of wearing flowers at the neck was introduced by Queen Mary, Elizabeth's predecessor, and many seventeenth-century portraits show us ladies carrying posies or a small bunch of violets made up with their green leaves as sold in our streets to-day.

One of those sudden whims of fashion which in a few weeks cause as much change as may ordinarily occupy a century, decreed that the farthingale should be abandoned. It may have been caused by one of the scandals of the period when the court gossips told how a certain Spanish princess and others adopted it to conceal their condition; anyway, it vanished from the mode as swiftly as a nightmare, and although it left a huge mass of material for the ample skirts, they were opened wide in front to display the petticoat, which hung straight and flat, as if in emphatic denial of the aspersions cast upon the bulgy farthingale. The beautifully puffed, embroidered, and open-work sleeves of this date have been embodied in many notable costumes during the last two centuries. Although it was permissible for crowns and coronets to be worn by any one owning land, yet none save royalty might wear crimson unless in undergarments, and the lower and middle classes were not permitted to wear velvet except for sleeves. It might, however, be stretching a point to claim that the red-flannel underwear of little girls of the previous century was the result of "historic precedence"!

One of the best guides to the manners and clothing of the seventeenth century is Pepys' Diary. Sam Pepys' father was a tailor, which perhaps accounts in some measure for the attention he gave to the question of clothes. In 1664 he wrote "of a new fashion for ladies of yellow bird's-eye hood," and in 1666 he reported that "women begin to wear buttoned-up riding-coats, hats, and periwigs." The next year Pepys records that Lady Newcastle in her velvet cap and her hair about her ears, is the talk of the town. She wears a number of black patches because of the pimples about her mouth, and she is naked-necked, but wears a close body-coat. In 1668 he mentions that his wife wears a flower tabby suit, in 1669 he buys her a new French gown called a sac. Every one who loves old things should read that most human and instructive document, the Diary of Samuel Pepys, who lies buried in St. Olave's, Crutched Friars.


A WELL-KNOWN ENGLISH ACTRESS IN A GENUINE OLD DRESS
Miss Beryl Faber. as Lady Sneerwell. in the "SCHOOL for SCANDAL."

A SEVENTEENTH CENTURY GOWN
ELWIN NEAME, LONDON

An old dress chronicle of the time of William and Mary proves that the literary style of the fashion writer of to-day is little changed from that of her predecessor of the early eighteenth century. Describing a lady of high degree, she writes: —

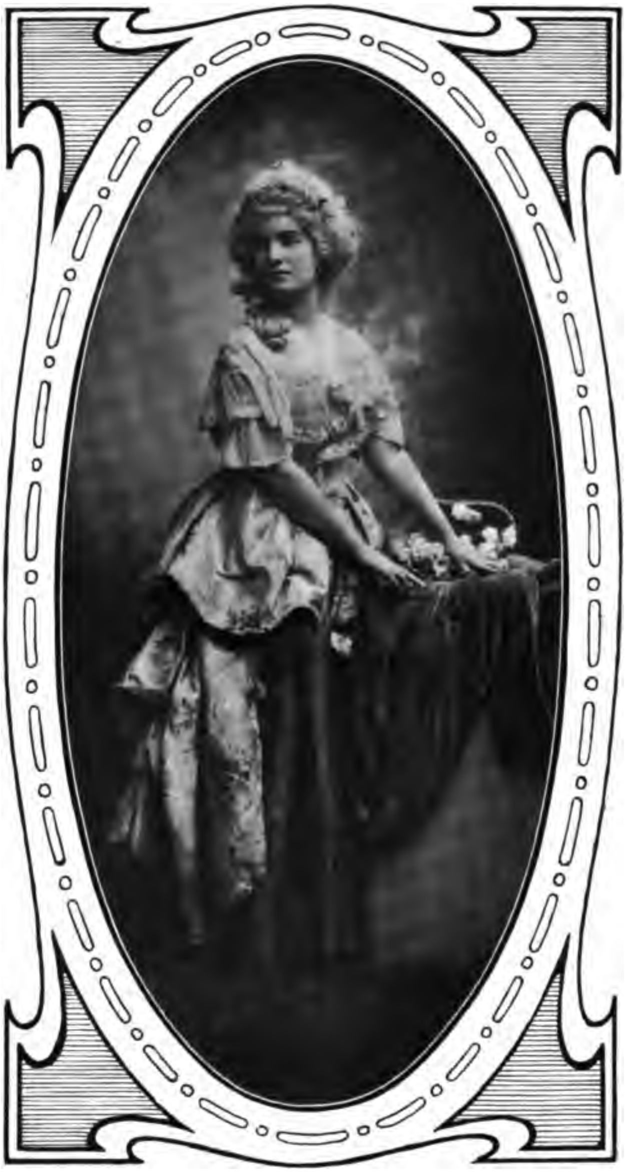
"We see her figurette gown well looped and puffed, her pinner is exquisitely worked. We can see her top-not, for she wears no rayonrie. One hand holds her Saxon-green muffetee, under one arm is her chapeau-bras." The figuerette gown is the figured material gathered into loops over the petticoat and stiffened out with wires. Her "pinner" is her apron, pinned on in front, and her "top-not" is the large bow which surmounts the high masses of her wire-supported curls over the forehead. The "chapeau-bras" is a hat that is not intended to be worn, as it disarranges the hair! It was carried under the arm, just to show it was not forgotten!

The substantial and sumptuous costumes of the Georgian period have formed the base of countless new designs. Many rich, floral brocades and "figuerette" fabrics of eighteenth-century origin were worn by ladies in the revival of waistcoats last season. The native English taste for color ran riot when George the First was king, and although it is a far cry from the joyous full-bodied George to John Ruskin, yet both are agreed on one point, which the latter expressed when he said: "All men, rightly constituted, love color." The coloring of costume in those days was conceived in no ultra-artistic scheme. Petticoats of black satin covered with large bunches of worked flowers, morning gown of yellow flowers satin-faced with cherry-colored bands, waistcoats of one color with a fringe of another, bird's-eye hoods, bodices covered with gold lace and embroidered with flowers — all lent that unmistakable though artificial note of gaiety to the nation. Hogarth, the father of English painting, has with grim humor left a gallery of pictures which with wonderful accuracy depict the costumes as well as the customs of the age, — the age of powdered wigs and patches, frilled lace cuffs, and tall beribboned walking sticks.

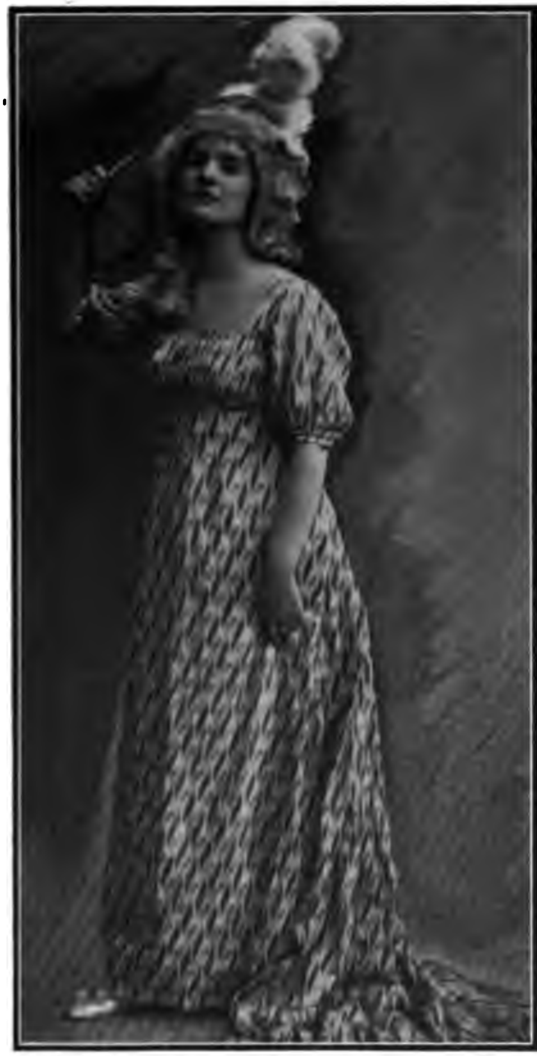
Bath was then in the hey-day of royal favor, and rank and fashion flaunted their fallals and finery at church. The ladies carried in little enameled comfit boxes caraway comfits, "for relief at church against an over-long sermon," and the general equipment of these painted, powdered, patched, and perfumed darlings is indicated by the following verses of the period from the *Bath Guide:*—

"In a band-box is contained
Painted lawns and chequered shades,
Crepe that's worn by love-lorn maids,
Watered tabbies, flowered brocades;
Straw-built hats and bonnets green,
Cat-gut, gauzes, tippets, ruffs,
Fans and hoods and feathered muffs;
Stomachers and Paris nets,
Earrings, necklaces, aigrets,
Fringes, blouses, and mignionets,
Fine vermilion for the cheek,
Velvet patches a la grecque.
Come, but don't forget the gloves,
Which with all the smiling loves
Venus caught young Cupid picking
From the tender breast of chicking."

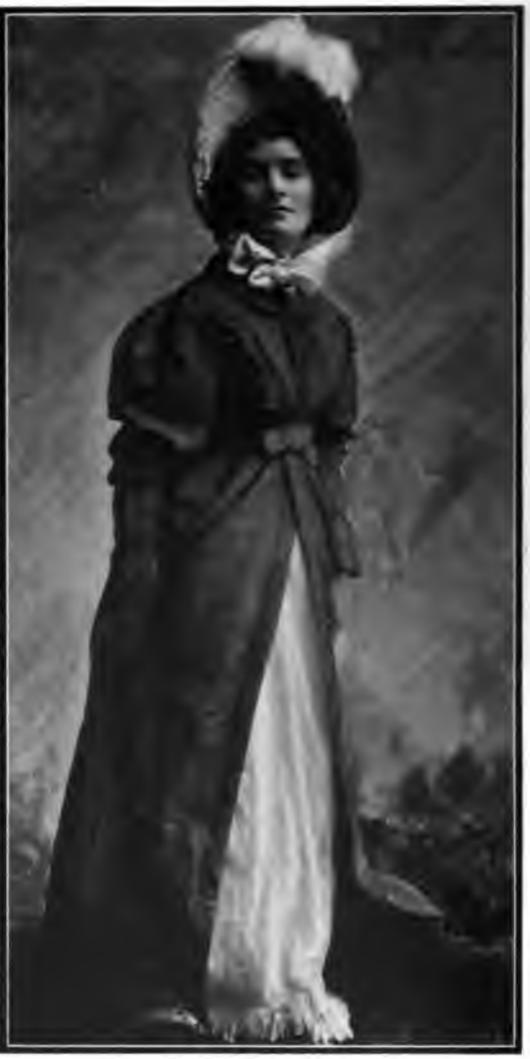
One fine morning in 1748 Her Grace the Duchess of Bedford was riding down the Mall, wearing a blue riding-habit with white silk facings, a cravat, and three-cornered hat. The king, who chanced to see her, so admired the neat costume that he at once commanded the officers of the Navy to abandon their scarlet and take Her Grace's gown as a model for their new uniforms.



THE PICTURESQUE PANNIER MODE OF THE MID-GEORGIAN DAYS
ELWIN NEAME, LONDON



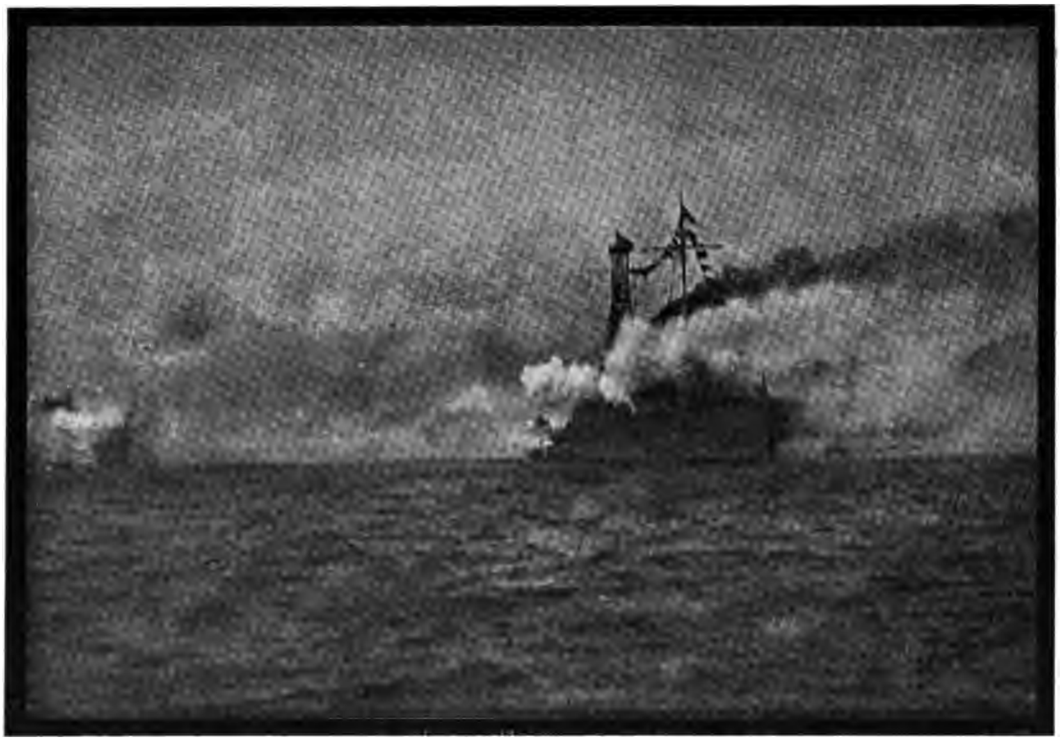
THE PSEUDO SIMPLE STYLE OF 1800
ELWIN NEAME, LONDON



THE NOT TOO ELEGANT MODE OF 1820

During the long reign of George the Third changes of costume were frequent, and all are fully set forth in the many fashion books and fashion articles in the *St. James's Chronicle* and *London Magazine* (not to be confounded with its successor, emanating from Lord Northcliffe's House to-day). Illustrated treatises on all sartorial subjects, from hair-dressing to tailor's patterns, are to be found in second-hand bookshops. Perhaps the most influential costume of this reign, so far as modern fashion is concerned, is that of "The School for Scandal," lately presented by Sir Herbert Tree with such amazing fidelity to detail. The wig grew larger, and the hooped skirt beautifully less. The germ-gathering coiffures stuffed with horsehair, hemp, wool, and powder, will not, it is hoped, be revived with the threatening renaissance of Georgian gowns.

The picturesque pannier dresses of this over-flounced and frilled period are so unsuited to the speedier spirit of the present that there is little danger of their coming in again, though a wise motto concerning the vagaries of fashion is that "one never knows." It is, however, possible that the



THE HUDSON-FULTON PARADE G. C. BELL, NEW YORK

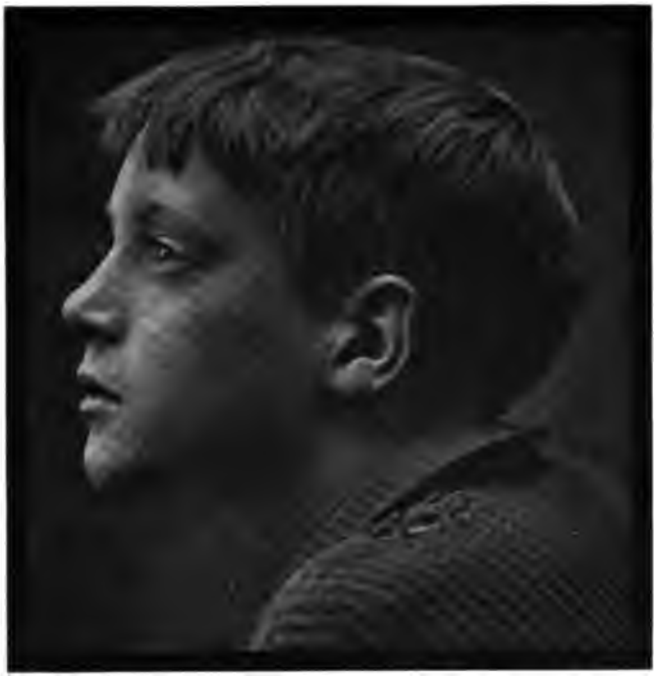
The Camera Club, New York, Annual Exhibition

"buffon" — a gauze or fine linen kerchief which stuck out in front of the breast with pouter pigeon effect — may be worn again; also the tall walking stick wielded so gracefully by Lady Sneerwell may have a passing vogue. It might be useful in arresting the idle but preoccupied chauffeur. Anyway, it is invaluable in arranging a pose for a picture.

The mob caps and the "calash," with its whalebone anchorage in front, which arrived towards the end of the eighteenth century, have made fitful entries in the fashions of the last decade, and beribboned and bebowed, lace-edged and flounced, they have much to commend them, pictorially. The trimming of the correct mob cap consists only of ribbons, and not its least recommendation from our point of view is their comparative inexpensiveness. By "our" I refer, of course, to the sex that has the privilege of paying for them, for it is truly said that if it takes nine tailors to make a man, it only takes one milliner to break him!

Dame Fashion, however, has always one eye open to the aims and needs of those whose calling it is to serve her, and she doesn't allow an economical style to ruin a trade, if she can help it. For just as the inexpensive mob caps began to gladden the heart of man and ease his pocket, "Leghorn" hats became *de rigueur*, and their price in those days was no joke to the bill-payer. We learn that they could be bought with "rich lusterings, satins, padesois, velvets, damasks, fans, and bands of Valenciennes of one Mrs. Holt, at the Sign of the Two Olive Pots in the Broad Part of the Strand," and the great Hogarth himself engraved her business card.

After the French Revolution one of those mighty changes that affect men and modes came over costume. The pannier dress of Lady Teazle shrunk down to the slimmer gowns we now designate as "Empire." All the hoops, full skirts, tall coiffured hair, powder, patches, and high-heeled shoes were laid aside to amaze posterity, and in their place came willowy figures and thin,



REMBRANDT LIGHTING (FIG. 1) ARTHUR HAMMOND, BOSTON

semi-transparent dresses, turbans, and the rest, that we may see so delightfully modernized in "The Dollar Princess." A single ostrich feather nodded in the hair, and with a simple fan completed the self-conscious simplicity of this period. The "Simple Life" movement of the early nineteenth century was responsible for the "simple cut" movement in costume, and although hats became prodigious in size, the dress grew still smaller, and for the first time in many years it was fashionable to wear skirts so short that they often reached only midway from the knee to the ankle. As skirts were cut high, so bodices were cut low, a nodding plume o'ertopped the hat, and the *tout ensemble* seems to us only suggestive of a musical comedy.

FANCY LIGHTING

ARTHUR HAMMOND

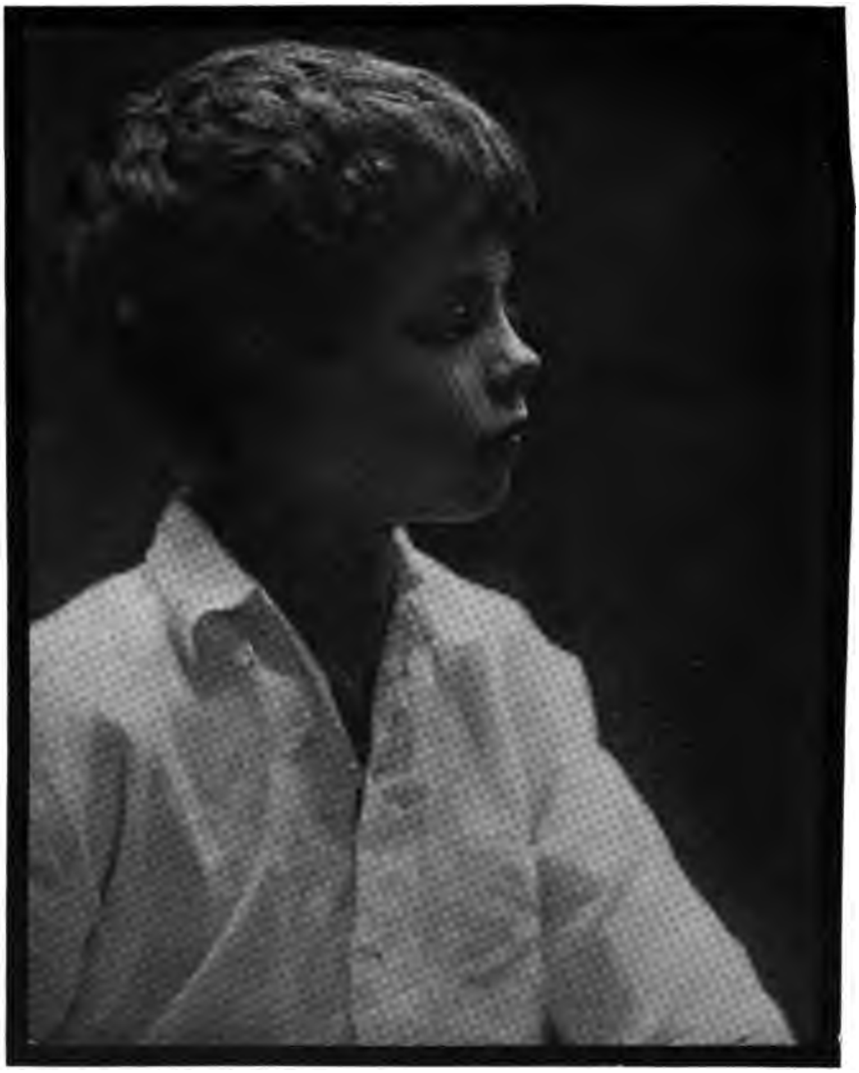
"DO you remember, some time ago, when you were telling me about 'ordinary lighting,' you said something about 'fancy lighting'? I have been meaning to ask you to tell me more about that; it sounds rather fascinating."

"Yes, I remember, I said I would tell you about it another time. We might go into it a bit now, if you like."

"Well, first of all, what is fancy lighting?"

"Any method of lighting the face in a portrait that is not 'ordinary lighting' is called 'fancy lighting.' There are a good many ways of lighting the face, and you can get many varieties by altering the direction of the light, or, in other words, by varying the positions of the sitter and the camera with reference to the window."

"Can I get fancy lighting in an ordinary room? Don't I want a complicated arrangement of skylights, curtains, and screens?"



A LINE LIGHTING EFFECT (FIG. 2)
ARTHUR HAMMOND, BOSTON

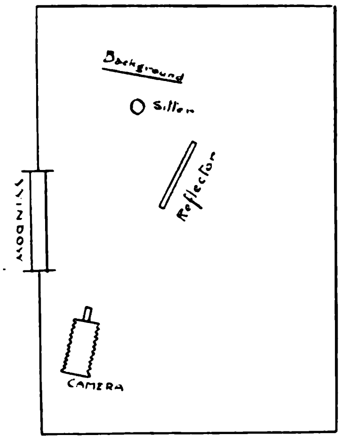


DIAGRAM 1.

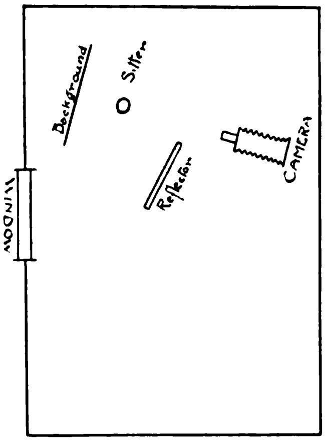


DIAGRAM 2

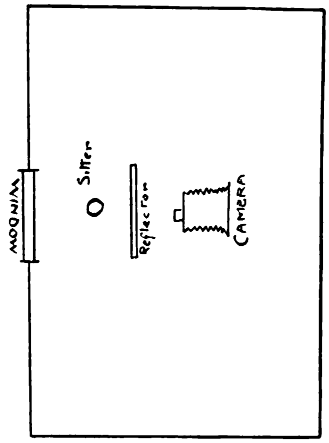


DIAGRAM 3.

"All kinds of unconventional and unusual methods of lighting are possible in an ordinary room, even more so than in a studio. A studio skylight is arranged primarily for ordinary lighting; that is the most common form of lighting, and the kind that suits the majority of sitters, and it can be gotten in a studio with little or no trouble; but if the operator in a studio wants to use fancy lightings, it means, more often than not, that he has to pull up most of the shades and concentrate the light till he has only a very small light admitting area, not more and sometimes not as much as you would have in an ordinary room.

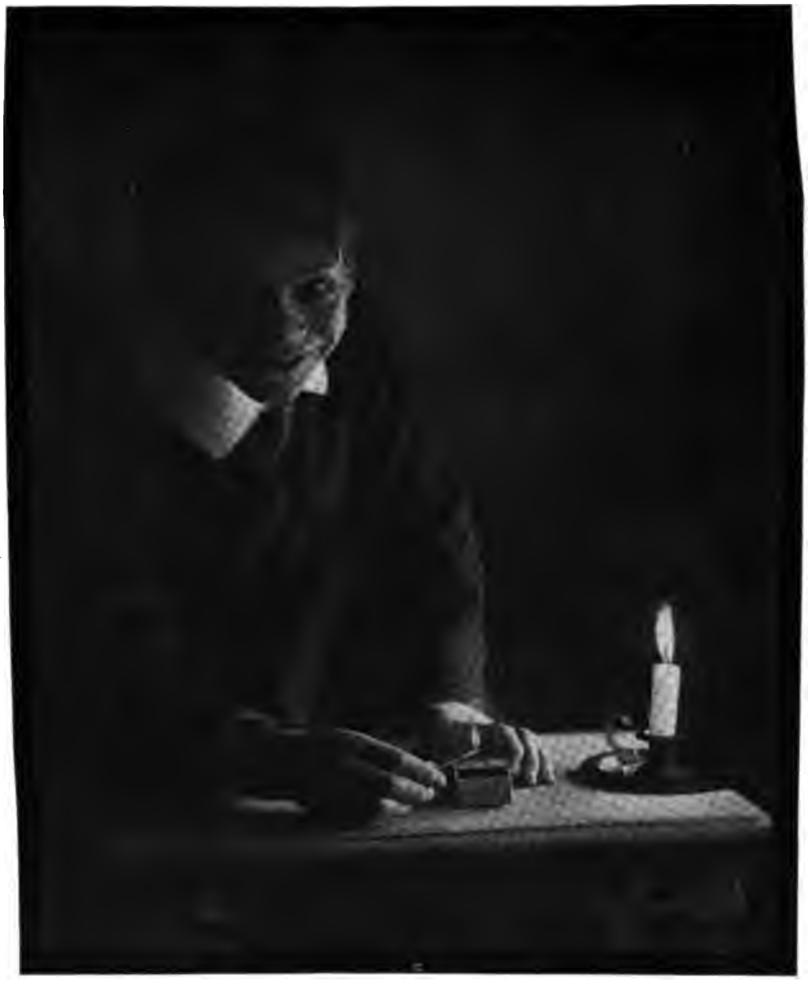
"Concentration of the light is an almost invariable feature of fancy lighting. If the studio has only a skylight, and no side light, as is often the case, the operator is very much handicapped, and many fascinating lighting schemes are out of the question for him.

"You don't need much in the way of screens or curtains either; the different effects are secured mainly by altering the relative positions of the sitter, the camera, and the light. In a studio you can alter the light to suit the sitter, but, in an ordinary room, where the window is stationary, you must move the sitter to suit the light.

"The two best-known varieties of conventional fancy lighting are Rembrandt lighting and line lighting. I have never been able to discover the connection between Rembrandt lighting and the famous old master, it is an unfortunate name, but it is one that has stuck and it is the name we must use for want of a better one. Possibly it is because in that form of lighting there is a good deal of shadow and half-tone, and Rembrandt well understood the value of shadow. The chief difference, in fact, between ordinary lighting and fancy lightings is that in ordinary lighting there is more light on the face than shadow, and in fancy lightings there is more shadow than light. In ordinary lighting we have light, with shadows and half-tones put in to show the modeling; while with fancy lightings we have a shadow picture with a little light let in to show the modeling; there is more shadow than light, so, if you keep this idea in mind, you will see that pretty nearly all you have to do is to carry the camera round to the shadow side and take your picture showing that side instead of the lighted side. That is all you have to do to get a Rembrandt lighting effect.

"I will give you some diagrams showing the approximate positions of the sitter and the camera in relation to the light.

"First of all, here is the ordinary lighting diagram, the same as I gave you before (Christmas number, 1909). Now stand at C and study the lighting on the sitter's face from there. You should have a high light on the forehead, over the eye on the lighted side of the face, a line of light down



THE RESULT OF THE MATCH (FIG. 3)
ARTHUR HAMMOND, BOSTON

the nose, a bright spot of light in each eye, and a triangular patch of light on the shadow cheek, just under the eye. If this is the case, you have a satisfactory ordinary lighting.

"Leave the sitter and the reflector exactly where they are and carry your camera round to the other side, — the shadow side of the sitter. You will also have to move your background, if you are using one (Diagram 2). That is all there is to it. It is quite simple, you see.

"This picture here (Fig. 1) is an example of Rembrandt lighting.

"Now, to get a line lighting effect such as in this picture (Fig. 2) in which the face is all in shadow with just a line of light outlining the features, you carry this idea one step farther. You bring the sitter forward between the light and the camera, and take the picture against the light (Diagram 3)."

"Wouldn't you get the plate fogged if you have the light shining straight into the lens like that?"

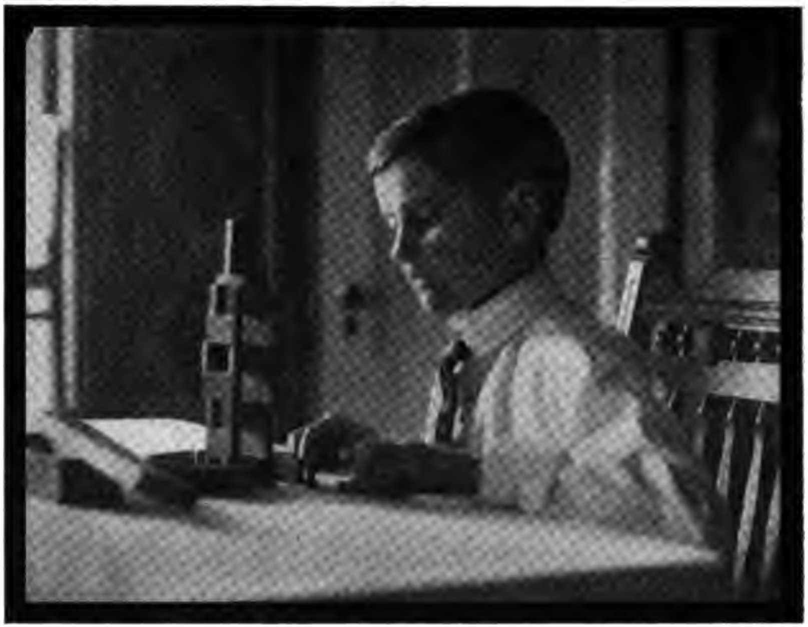
"That is just what you have to be very careful to avoid. There is of course a certain amount of risk. The lower part of the window should be covered up, as it would be for ordinary lighting, and the covered part will serve as the background. The chief danger of fogging, therefore, comes from the top part of the window, and you can reduce this risk by using a reflector that will at the same time act as a lens shield. In a picture like this, where practically the whole of the face is in shadow, a reflector is very necessary; and if you consider that rule I gave you about the angle of incidence being equal to the angle of reflection, you will see that the only possible place for the reflector is exactly parallel to the window, on the other side of the sitter, so that the reflected light is thrown straight back into the shadows. This is the only possible position for the reflector if cross lights are to be avoided. If you put the reflector way back behind the camera, it would be too far off to be of much use, so the only alternative is to put it between the sitter and the camera and have an opening cut in it so that you can take your picture through it.

"If you intend to do much portrait work of this sort, it will pay you to construct a simple piece of apparatus that will serve as a reflector and at the same time act as a lens shade and keep out all the light you do not want. You can make it yourself or have it made for you. All you want is a light wooden frame about three feet square covered with some cheap white calico. Just tack the calico on round the edges. That is all you need for an ordinary reflector; but if you want to use it as a lens shade when taking pictures against the light, you should cover it at the back with some dark opaque material such as thick brown paper. The position of the opening will be determined by the height at which you most commonly use the lens. A long narrow opening — say, 12 inches high by 6 inches wide — will give some latitude as to height. If you cut out three sides of a rectangle, you will have a flap that can be pinned up when you want to use it in this way and which can be let down when you use it as an ordinary reflector for ordinary lighting or Rembrandt lighting. If it is covered at the back so that no light can come through and is so arranged at a suitable distance from the camera that it hides from view all except the picture you want on the focusing screen, it will keep out all extraneous light and will greatly reduce the risk of fog.

"For such trying subjects in which there is so much contrast it is advisable to use anti-halo plates. You must also be careful to give sufficient exposure to get detail in the shadows. In such pictures the shadows are more important than the high lights; and if the shadows are under-exposed, the result will be a dark, heavy-looking silhouette. Remember, therefore, to expose for the shadows and develop for the high lights."

"Are Rembrandt lighting and line lighting the only forms of fancy lighting there are?"

"Why, no. As I said before, fancy lighting is the name given to any method of lighting other than the ordinary top-side lighting of the studio. There are all kinds of fancy lightings. That candle-light picture (Fig. 3), 'The Result of the Match,' is an example of fancy lighting. The idea here was to make the light on the face look as if it were the light from the candle, but of course



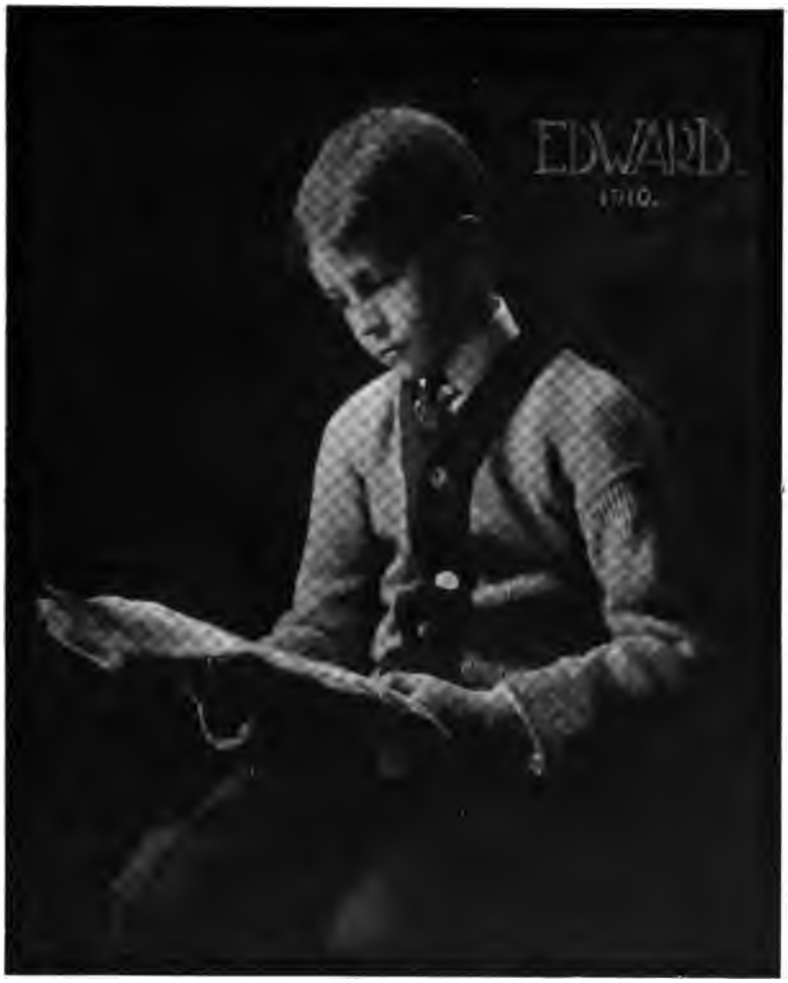
DOMINOES (FIG. 4) ARTHUR HAMMOND, BOSTON

as the light from one candle would take a tremendous time to make any impression on the plate it had to be done by arranging daylight in such a way as to imitate the candle-light. In this particular picture the light comes from a window to the left of the sitter just out of range of the lens. The whole of the window was covered, leaving only a strip at the bottom just below the level of the table so that the light struck upward in the same direction as the candle-light.

"In a similar manner it is possible to imitate more or less closely the effect of firelight or the light from the footlights on the stage. But such things partake more of the nature of freak lightings; and though they have a certain amount of interest as such, they are hardly pleasing if the result is intended to be a portrait rather than a figure study."

"It certainly seems as if I shall have to do a lot of thinking when I want to make pictures with fancy lighting."

"Well, of course you must think if you want to do anything worth doing, but you should try and get the thinking part done before you take the picture. What I have been telling you is all pure theory; and though a certain amount of sound theoretical knowledge is very necessary there can be no hard-and-fast rules laid down for a photographer with ideas of his own. Every picture must be treated according to the prevailing conditions and circumstances, and observation and ingenuity are mighty necessary in addition to theory. Sometimes it is not possible for you to put all your theoretical knowledge into practice and you have to make the best of things as they are. Learning theory in photography is like learning Euclid at school. The Euclid in itself is not of much practical use — no one wants to prove in everyday life that the angles at the base of an isosceles triangle are equal to one another or that the three angles of a triangle are equal to two right angles, but you learn Euclid in order to learn how to think intelligently and how to reason out things in a lucid and convincing manner. So it is with photographic theory. You have to understand that in order to know how to get the effect you want and how to recognize such an effect when you have got it.



EDWARD (FIG. 5) ARTHUR HAMMOND, BOSTON

"Very often you will find that you can get certain lighting effects without using any reflectors or artificial backgrounds or anything else that your theoretical knowledge might lead you to suppose would be necessary. The little picture (Fig. 4) is a case in point. I was visiting some friends recently and while I was there the boy happened to be playing with some dominoes, as he is in the picture; and it so happened that everything was ready for the picture to be taken, — the lighting was right and other conditions were favorable. I had a 4 x 5 hand camera with me and I took it right away without having to do anything except to open the door which is seen behind him, in order to make a plainer and lighter background for his head. The shadow side was so well illuminated by the other windows and the light from the adjoining rooms that the shadows were not too heavy and the strong main light from the big window, the edge of which is just seen on the left-hand margin, gave definite character and quality to the lighting scheme.

"Such effects, and many equally effective ones, can often be obtained in nearly every house. And it is in just such natural and unstudied effects that the great charm of home portraiture is to be found; but unless you know something about the theory of lighting, you might not see your opportunities when they are presented to you.

"Figure 5 also required no great amount of preparation. This might be described as bow-window lighting. The sitter was placed in one angle of a bow window and the light comes from the top and one side. The shade was pulled down on the other side, and a dark couch cover was pinned up behind him to form the background. That was all, no reflector was used.

"You will find later on, when you have gained experience, that you can do things in an apparently haphazard way and yet get with more or less success the effect you are aiming at. The theory is there in the background all the time, but it has become so much a matter of habit that you do certain things in a certain way not by reasoning out the theory, but because you feel that it is right to do them in that way. When you write, you do not have to stop and think how to form the letters or how to spell ordinary words; that has become instinctive, and you can devote all your attention to the style and composition of the sentences. So, in picture making, when you have mastered the theory you can devote attention to the composition of the picture. So my advice to you is this: Get into your mind the theory of the conventional Rembrandt lighting and line lighting and try and grasp the fact that different lightings are fundamentally only variations in the positions of the sitter and the camera with reference to the source of light. Backgrounds and reflectors are only accessories, sometimes necessary and sometimes not, according to circumstances. Learn to judge the lighting by studying the sitter and not by working out mathematical problems, then go ahead and try experiments and carry out your own ideas in your own way."

WITH THE CAMERA ON A BALKAN CROSSING

FELIX J. KOCH

(Concluded from page 274)

THERE was a suburb of old two-story frame huts, with verandas along the second floor and stores in a corner room of the first floor, — Turkish all. Plums had ripened beside the road, and laden branches over-hung from pastures all walled in. Moslem houses were out here large affairs, some of these with lattices before the windows upon the second floor. The first floor was set on a level with the tall wall to the yard, such that one could not see over it. Along the right, all the way from town, a creek ran, fast and rippling, as it skirted the mountains. There was a mosque here, too, and the sight of it led Levi to chat of the Jewish persecutions. Down here, he said, folks disliked the Jews as being shrewder than were others.

Homes of external plastering, wider on the second floor than on the first, served as outskirts still. There was a cemetery here, at the foot of the mountains, the monuments with turbans of stone. Then corn and plum orchards began, while to right and left the Balkans rose up, high.

The land, in fact, had altered wholly. The icy brook awoke our thirst; the mountain air, the hunger. To right and left the peaks rose, — tall and forested. At the foot was the blue river, with its cascades, its ripple, and its roar. The babble set Levi to dozing; we, the while, must watch the goats, and the cows scattered over the hills.

The road itself was good, and lined by the telegraph poles. Donkeys, bearing panniers filled with pears, brushed beside these.

Five minutes past three came a digression — a halt at an inn, of immaculate white plaster without, where we would dismount for a *café Turque.* An old Turk, hoary of beard, and with splendid turban, sat cross-legged on the floor beside the window. He seemed hovering over two round, tiny saucers, of a white porcelain of red and blue design. In these was the coffee; it was poured in upon a lump of sugar, from a small brass coffee can, heating near by on a brazier. A little yellow spoon was placed on the tin tray on which they were served.

SHEPHERDESSES FELIX J. KOCH

Out in the summer house they served us; we, however, could enter this only after a Turkish woman within, had left. Then came the coffee, two cents the cup.

Continuing the drive, corn and hemp fields were in the vale. A family went past, with packhorses; we wondered why some baggage line had not been opened through here. We kept, still, to the foot of the mountains, where we could see the opposite slopes, forested and huge, across. At their foot was a charming blue mountain rivulet, winding on, among great palisades clothed with trees. In the winter the snows lay deep, and folks went through here with sleighs. Erelong we were at the foot of palisades in this narrow valley of the river, — the cañon more beautiful still. Just above us were those dense, overhanging mountain forests.

Two *gendarmerie*, the police of the road, went by on their horses; otherwise we were without defense, in all the dense wilderness of mountain forest about. The narrow road hugged the river valley; there was no sign of life. It was lonely here; it made us think of the bandit bands of the time of Turkish wars.

Then, again, the valley widened; the forests seemed more as in our own Alleghanies. We could break the loneliness with the echo; splendid this as we cantered down the center of this mountain valley of woods.

Once five packhorses, two peasants afoot, went down, a colt keeping just behind its mother. The men were in blue coats, and bloomers reaching to the knees, with the stockings; they wore the red fez, the dirty white shirt. They greeted and then were gone. These folk speak the Croat or the Turkish.

Wild clematis was remarked in the trees; then we turned to chat as we could with the driver. He had taken Levi for a nurse, because he wore a long white duster. He drew our attention to

A ROADSIDE SMITHY FELIX J. KOCH

melons beside the road, to the willows in the green fields along the river; to how narrow this valley for such densely forest-clad slopes, and then to where, far beyond, we could see splendid mountain chains. It was magnificent, that view,—the more so for the quiet, broken only by the hoofs of occasional packhorses. We tried to note the varieties of trees; there were willow and wild alder and elm and the arbor vitæ in the yellow soil of the roadside.

Erelong the mountains were tilled again; the cultivation, however, patched with forest, and the result a series of squares of yellow, dark green, light green, that made one think of our own White Mountains. Cows and horses were in the stubble before one house; then, again, we could see some laborers in the fields. The taste of the splendid coffee lingered still, as we came on more grain next the river. A Bosniac wearing a carpet-bag on his back was here.

By and by the mountains grew lower, the valley less fertile. Palisades towering up from the river were now mighty rock slabs, rather than forested. A water-trough halted us a moment (ten minutes past four), and we caught a snap-shot of the rolling hills here, — a view as in the Valley of the Shenandoah. A wooden railing had been built along the road; no barrier this, however, to the black goats and the sheep beside the river.

A Bosniac girl—her two braids down across the respective shoulders; her brown hair parted at the middle — likewise tempted the kodak. She wore a dress of white, while down the front of the waist there was a black criss-crossing. A gay belt, too, and then still gayer border to the skirt of white completed the attire. In among these pretty, cultivated hills again there were some lime burners. They had the round pile of rocks surrounded with withes, then at the center the white stone was visible. The hot air danced above the pile as again we halted to snap-shot.

There came a bend into a smiling open valley here, of corn and pasture land, the woods stretching away to the tops of the sloping mountains. A herd of horses with the gipsy venders went down behind on a canter. Wider still, better cultivated, was the valley now, with hay-stacks dotting it, to the forests; while beside the river wild carrot and elder and thistle and the wild parsnip ran riot.

Over a bridge, we cross a dried-up creek, where a Turk rode a-horse, a roll of cloth behind him, and his saddle of the richest; corn, and the like, filled other valleys opening off one into another, with the charm of the Balkans alone. The pike through these stayed wide and good, we were again above the blue, lovely river. Snowy white rock-walls would at times be seen. Again, willows hedged the corn to the river. Then, again, the mountains rose, all forested, and there was fallow at the swift-winding stream's sides. Cows, white and brown, were in the road; we watched them, then turned the eyes to the play of colors on the waters of the stream.

Levi, the while, like many another, asked if it be true that the President shook hands with all, at his *levees*, — this, and of our Indians. It helped to pass the valleys of grain, hemmed in all about with mountain forest, and to make the crags coming out of the mountains, around, pass the sooner. Somehow the scene made one think of Mauch Chunk, — only here there was a church on a little hill, to one side, and we could discern the ruin of an ancient Turkish castle on a peak. It was peaceful ever, still; even the rustic inn, with the Turks at coffee outside, at a bridge where a road led off at the foot of the forest-bound peak that was topped with the ruined castle, wore an air of silence.

At ten minutes to five we entered gorges once more,—with forest, these. Beautiful still were the mountains; occasionally there would be white crags, with the trees scattered upon them. Close at hand, where the road was cut from the slope, there rose the white rock wall; above it, we could remark the leaves beginning to turn, — this due more to the long drought than the autumn.

Levi recounted tales of the hunt as we rode. An immense mountain ahead had cut off the sinking sun and it was gloomy here. The driver, too, did not talk much; it made it rather lonesome.

We had let down the cover of the vehicle, for it was cooler now; we were rid of the beating sun. Just the roar of the ever prettier river broke in on one's soliloquy, — this, and again the innumerable little brown-red butterflies. At the heart of the forest-river valley, at twenty minutes past five, we came to a house, — this and a water mill. Otherwise, for mile on mile the scenery remained the same, — just forest and river and valley. In the dusk a gipsy passed us; Levi was telling the while how he must give six months' credit in these towns.

Half past five again brought us out of the gloomy valley and to where we could overlook a sunny series of well-tilled hills. One high, forested mountain and a far thatched village were in the view. At the roadside, here, young trees had been planted, set between two poles bound together, — this despite the tremendous forests all about. Goats in the road eyed the saplings eagerly.

The Jew sang, while over to the right, among the hills, a rather better preserved castle-ruin stood, a-top a hill, at the mountain's heart.

The horses seemed to draw fresh impetus from the sight; they trotted fast into a hamlet of old-time two-story, steepled-roof houses, the lower floor to these much narrower than that above. The village was built where the white rocks rose up, and the river widened as it curved between pretty blue hills. At the foot of the hill with the larger castle, corn fields wound around. And they then led the way to more tremendous palisades, — sheer walls of rock, with a single cave, as at St. Canzian. An odd, red-seeded herb grew thick next the road as the dusk of a gorge fell upon us; then, at five minutes to six, another hamlet, just two homes or three, was met.

There was an inn here where we would dismount to sup; it belonged to the government, but was run by a renter. He calculated on an average of six guests a day by the diligence, and perhaps two more by the carriage, he said. He was a German.

We purchased a set of postals of hereabouts, and again of Bosniac peasant life. They came to two crowns, and we paid forthwith. After we had eaten, however, he insisted we had not paid for them; he would make us pay a second time. When he saw we could not be bluffed, he went in and "recounted his money." Then, all apologies, he found he had "made a mistake." He was noted for this trick, — Levi warned us.

A MOHAMMEDAN MAIDEN FELIX J. KOCH

There was chicken and bread and half a litre of the local red wine for tea.

Before we had ordered the wine our host had told us the water from a road-side fountain was not fit to drink, it gave one stomach ache. After we had paid for the wine and the like, he let us drink it freely, admitting then, with a laugh, he had only made the other charge in order to sell the wine. It made Levi recall an Italian who wanted him to give him another *lire*, on the reckoning; and when the tariff was flaunted in his face, stated he meant he *could* GIVE it — if he chose.

Meanwhile we supped there on the portico, at the rear, among the huge stony mountain forests. Tomatoes were drying on the porch. As we supped we looked over a register of passers. Buffalo Bill's show had gone by, and their marks were put in by members of the troupe.

Supper was settled for at forty cents each, — half past seven, then we left.

Night was coming on in the mountains; in fact had arrived, and we could only see the dim, dark form of the forest-bound slopes, as we advanced. The roar of the river on right or on left as we crossed, too, served as guide. Far above us were the stars; we could make out the road by the aid of the lamp, which we had lit, alone. Occasionally a rare wagon or donkey went by.

It was chilly, — aye, cold; and we dozed. Now and then Levi began another cigarette, and muttered a few words in the doing.

We were trundling on, for the driver was doing his best to spare the horses, which were his brother's. It was disagreeable now, thanks to the early August cold.

THE WINDOW SEAT J. W. ALLISON, NEW YORK

Camera Club, New York, Annual Exhibition

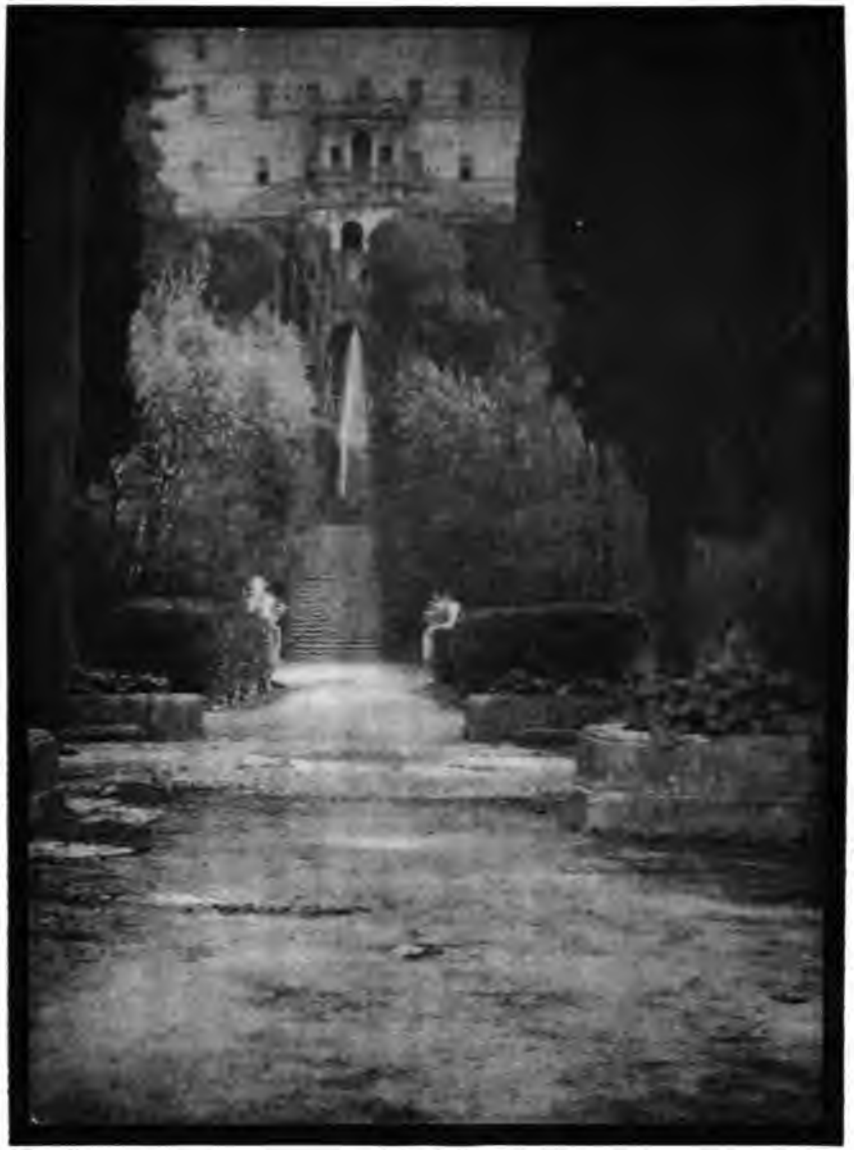
At one point we passed through a short tunnel of white stone, — then another long one succeeded; — curiously, through the very mountain. It brought us to the lights of Rjeka; we galloped now to the Grand Hotel. Perhaps the dollar twenty we must each now pay lent the driver spurs.

As it was it was twenty-five minutes past ten when we got to our chamber, — a room on the first floor, with two beds for one sleeper, and this at eighty cents. Single-bed chambers, it seems, were all taken.

Guests must pay for the candle-light, but the rooms were so light and large and airy who would mind?

We were trying to figure just how far due south-east of Banjaluke we might be here, as we fell asleep. Pictures to be taken on beyond danced in on our dreams.

Hypo in the Developer. — It has long been known that a trace of hypo added to the ferrous oxalate developer increased its action, and now no less an authority than Dr. Eder says a good word for that hitherto much-abused chemical. He recommends the addition of about one sixth of a grain to each ounce of the ordinary metol developer as tending to give greater brilliance and pluck to the negative, and says that it acts as a restrainer better than a bromide, and at the same time has considerable influence in preventing fog.



VILLA D'ESTE
J. W. ALLISON, NEW YORK
Camera Club, New York, Annual Exhibition

A GOOD WORD FOR THE SHORT-FOCUS LENS

JAMES THOMSON

THE esteemed Dr. Nicol, as editor of this magazine throughout the years of his activity, did valiant service in behalf of the lens of long focal capacity, and I, as an humble disciple, for long have been at one with him in his contention. A couple of years' use, however, of a hand camera of the folding type has led to some modification in view, and candor now prompts me to admit that, as in other problems innumerable, there are two sides to the question. At present writing I am convinced from actual outdoor practice that much of the evil pertaining to the employment of lenses of limited focal capacity arises from abuse and not legitimate application.

Careless snapping, regardless of what is in the foreground, is responsible for much of the distortion with which we are confronted. But for this we must blame the manipulator.

As is well known, normal human vision involves a certain narrow angle of view, and any marked departure from it must strike the observer as a trifling with the truth. When, therefore, we discover in the product of the average camera of the day figures truly gigantic in the foreground, while in seeming but a few feet farther away is a race of pigmies, we do not require to be assured of the untruthfulness of the representation, particularly when, as sometimes happens, we know the unfortunates depicted.

This manifest distortion of fact has become so much the "regular thing" nowadays, in some quarters we hear it spoken of as inseparable from a photographic drawing. Therefore, is it not unusual to hear of "photographic" perspective as if there were more than one kind. Photographic perspective is a myth. There is but one kind of perspective, and that to be found in the product of the short-focus lens is as correct as any, always providing one can conform one's vision to it, which one manifestly very often cannot. In very truth, the average short-focus picture, in its display of violent perspective and consequent distortion, is of "the stuff dreams are made of," and desperately bad ones at that.

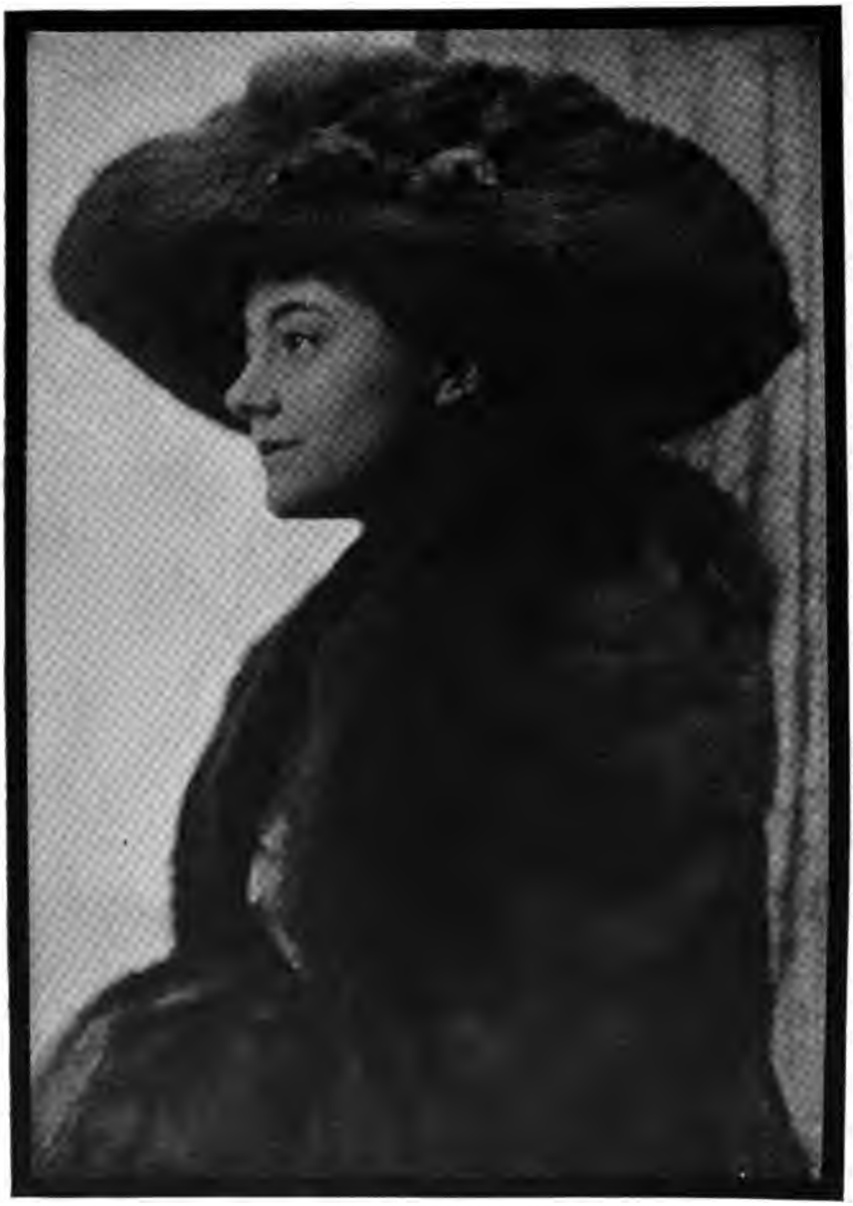
Normal vision conforms to a narrow angle of view, while the short-focus objective embraces a comparatively wide one, the latter depicting considerable that is entirely outside of one's field of vision. Did we but take the same extended survey as does the short-focus lens, we should see pretty much the same, or similar, distortion that is to be found in so much modern outdoor photography. As we manifestly do not have short-focus eyes, we consequently fail to view things in short-focus fashion. Such being the case, it behooves us to have our photographic product conform with the sight we have,—a thing not difficult.

Probably ninety per cent of the cameras to be found in the hands of amateurs are fitted with lenses of short focal capacity. Some, of course, are shorter than others; but the best of them have a focal length equal to the diagonal of the plate employed. Thus, for a 4 x 5 plate, a lens of the aplanat type is most often to be found of a focal length of 6¼ inches, very frequently, indeed, of but 5½ inches, and in the low-cost box instruments of the fixed focus variety very much less.

Compare this, then, if you will, with normal vision which would call for a focal length of lens at least equal to twice the base measurement of the plate employed. Thus, a 4 x 5 plate would demand a lens of 10-inch focal length, — longer would do no harm.

In a speedy hand camera the long-focus lens is out of the question. Rapid exposures are an essential, and another requirement is depth of field, which will account for the very short focal capacity of lenses in so-called fixed-focus cameras of the Brownie order.

When I began to take photographs, it was with a cheap box camera of the fixed-focus variety, — a lens of 4¼ focal length upon a 3¼ x 4¼ plate. After the manner of my kind, taking views of every conceivable object in sight, I used to wonder why a certain little schoolhouse in the



PORTRAIT OF MRS. R.
HENRY, GALOUPEAU, NEW YORK
Camera Club, New York, Annual Exhibition

PASTORAL EDITH H. TRACY, NEW YORK

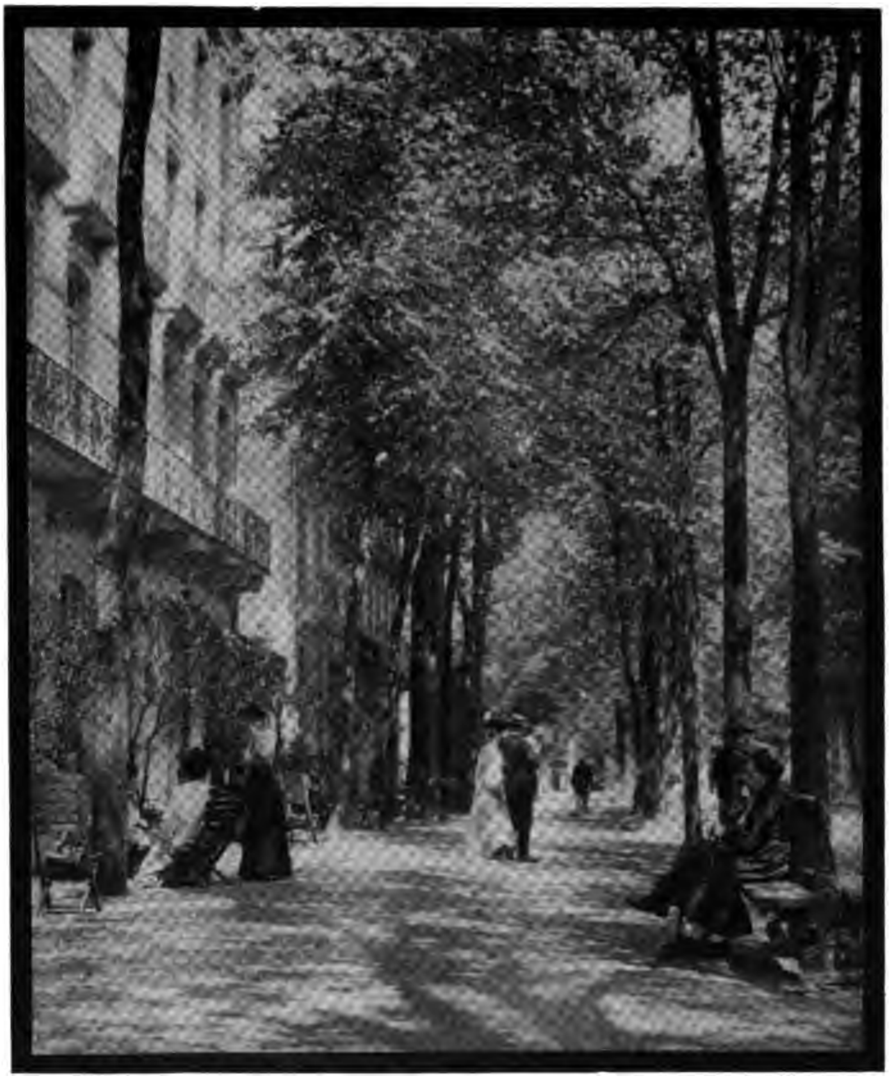
Camera Club, New York, Annual Exhibition

distance of one particular view from a window always looked so diminutive and so far away. In the pictures it appeared to be twice as far away as actually was the case, and as it appeared to us with our everyday vision not likely to deceive.

This is a condition that always puzzles beginners. Why do objects in the foreground appear so large, while distant objects look so small? Such are the qnestions propounded by those new to the game, never imagining that manufacturers sell other than cameras taking truthful pictures. Do we not hear it asserted that the camera, or, to speak more correctly, the *lens*, cannot lie? We who know better can attest to the contrary, and lenses are telling falsehoods every day, we well know, — some by mere chance, some with malice aforethought. A friend of mine shows a picture taken in one of Boston's busiest thoroughfares, — State Street, — the center of the financial district. The exposure on a very slow plate was made on a bright, sunshiny day, and though hundreds of people passed meanwhile, not a trace of them is to be seen in the resultant print. The busy thoroughfare appears as quiet as a graveyard, though it is a pretty noisy place in reality on business days at the mid-day hour.

Now the reason why the little schoolhouse in the picture appeared so much smaller than it ought is easy to understand in the light of my present-day knowledge. It simply *appeared* small, because so many other objects in the immediate foreground were so unduly enlarged. Separate the building from such exaggerated objects. Cut away about half the print, by trimming the margins, and the schoolhouse will appear all right.

With a lens of 6½-inch focal length on a 4 x 5 plate, I take the schoolhouse view, and the result, though ever so much better than that made with the box camera, still leaves something to be desired. Discarding the front element of my aplanat lens, I take another exposure with the rear



STREET SCENE IN LUCHON, FRANCE
W. H. CLOSE, NEW YORK
Camera Club, New York, Annual Exhibition

element alone, the resulting picture showing the schoolhouse just as our eyes see it, and free from comparison with exaggeration in the foreground. By using but half of the lens combination, I doubled the focal length, and the resultant view is in absolutely correct perspective.

But, supposing I enlarge the schoolhouse portion of the first view to the dimensions of the building in the second. What then? I have an image precisely the same, there being not one iota of difference. The fact is there is no difference in the images other than in size, the short-focus image being exactly the same as the other, but smaller.

This should enforce the lesson that the short-focus lens is good enough when we know how to use it, and the proper way is to employ it in a variety of occasions upon a smaller plate than the one for which it has been listed. What matters the size of the plate providing we have the means of enlarging to any reasonable extent? Thus we may use a 3¼ x 4¼ plate in a 4 x 5 camera, and always have views with a great deal better perspective. To do this implies the use of kits of proper dimensions in the regular holders.

This is one way of doing it, — by a sacrifice of available pictorial space; but I do not, as a rule, find it necessary to thus make the sacrifice.

There are numberless occasions when we can use the regular size plate to full capacity and have correct perspective, too. Always where there are no objects in the foreground liable to show exaggeration we may do this, — marshy scenes and some marine views, for example.

A long-focus lens precludes, in a great many cases, the taking of a view, because of a circumscribed area. One cannot get far enough back, or if one can, some object comes in the way to obstruct. "Leave it alone," says some one. I don't think so.

With a small camera and a short-focus lens we can take the view and in the middle of our negative find all that is essential to our purpose. Here, in perhaps but a fraction of available plate space, we have secured our view in perfect perspective and proportion, the cutting away of the margins eliminating all suspicion of distortion or of undue enlargement, while resort to bromide or gaslight papers supplies a ready means of getting as large prints as requirements dictate. What more do we require?

With certain subjects in composing a scene upon ground glass or finder, we should endeavor to get all essential features well within certain imaginary boundaries, letting objects near the margins have only a secondary interest, the result being that oftentimes one may obtain from one negative two distinct pictures. Thus sometimes is it possible to have the alternative of an upright view or a horizontal, sometimes two of the former and one of the latter.

By using but the center of the negative, there is obtained precisely the same view as would be had by a long-focus lens (providing one could get far enough back to take it, which circumscribed locality often forbids), and a whole lot additional matter which, in part at least, combined with the other, may serve to form an entirely dissimilar composition.

It is almost as interesting as taking a trip afield to test the negatives for likely pictures. A couple of cut-outs upon wide margined card mounts supply the means of testing, two sizes of opening being necessary. Placing the card opening over the desired portion of the negative, it is held up to the light, when the arrangement of the various features is shown up to advantage. Shifting the card one way or another gives us a new combination, and we may thus readily discover whether an upright or a horizontal arrangement is most fitting. Once decision is made, the dimensions for enlargement can be determined.

The fact is, the advice to use only the lens of long focal capacity in all serious work is now subject to modification. That advice was all right in the old days of large-size plates and when the means of rectification of mistakes were not plentiful. In the old days workers wanted large pictures, nor could they afford to trim off undesirable portions, as is the prerogative of all of us to-day. Now with the means of enlarging upon bromide and gaslight media it is ours to command

SNOW R. C. BURCKES, SOMERVILLE

to-day, what matter if we are obliged to do away with half the material upon our negative, if by just so much sacrifice we help our composition?

With a light folding camera of the better class, and fitted with as good a short-focus lens as one's means permit, most excellent work may be done; but it cannot be done by thoughtless snapping, regardless of what happens to be in the immediate foreground. No human figure less than a dozen feet away should appear in a view at all, and it will be a great deal better if the distance is twice that, though in street work that is not always possible.

The employment of the hand camera does not imply the doing away with the tripod in serious out-of-door performance. By all means is it advisable to resort to stand work when possible, notwithstanding one's camera is of the hand variety. Though good work may be done with the finder, the higher elevation of the tripod cuts off considerable foreground and hence does away with matter liable to exaggeration.

The besetting sin of so many is exemplified in the desire to get as much on a plate as possible, and one need never expect satisfactory results until such an ambition is overcome. Certain features one sees in a landscape which one would fain incorporate with the view, but there is but one way to do it with a lens of short focal length, and that is to get it far enough out of the foreground to be in correct relation with objects in the distance. There are, of course, some subjects where exaggeration is not so apparent as in others, but one cannot photograph an animal, such as a horse, in part, at least "head on," without this undue enlargement becoming prominent, the foreshortening showing an equine tending mostly to head, while the hind quarters appear as if belonging to another animal entirely.

Take care of the foreground; the distance will take care of itself.

A CONVENIENT MOUNTING PROCESS, AND SOME GENERAL HINTS ON MOUNTING

WILLIAM S. DAVIS

MANY amateurs have learned by experience the provoking way prints have of curling up in all sorts of ways when pasted down on mounting paper or thin cards with ordinary paste, and the writer, having shared this experience in common with others, has tried a number of ways of overcoming the difficulty, with varying success, finally, however, hitting upon a method which proved not only quite satisfactory, but very simple and inexpensive as well.

There are, of course, those who say prints should only be attached by their corners to paper or thin mounts, and this may meet all requirements when the edges of the prints do not curl; but as a great many prints are made upon paper coated with a gelatine or collodion film, which gives them a most persistent curling tendency, such prints, when allowed to have their own sweet way, are not likely to lie very flat when fastened only by their corners; so the only remedy seems to be either to use a "cut-out" mat over the print, to keep it flat, or attach solidly to the support, and it is the latter alternative I advocate, especially when they are of small or medium size, the only question being how best to do it.

Pastes are out of the question on account of the amount of water they contain, which causes too great expansion and contraction of the print, resulting in a badly rippled mount. Alcoholic solutions of a gum (like shellac) are sometimes recommended, but it is generally difficult to make the prints stick permanently. I have tried the dry mounting tissue; but, aside from its cost, it proved, in my hands at least, somewhat troublesome to keep the iron at just the right temperature to make the prints adhere properly to the mount, the tissue either parting company from the print or mount according to whether the iron was too hot or too cool; so have passed that method by. There remained gelatine as a mountant, and that is what I found best suited to the purpose, only *not* in the way it is generally employed, which is to coat the back of a print with a hot solution and place on mount immediately.

THE PROCESS

My method is to lay the dry prints face down on two or three layers of clean paper, and coat the back of each, either before or after trimming, with a warm solution of soft gelatine, applied with a stiff bristle brush, and then allow them to dry, which takes but a few minutes in a warm room. The gelatine solution is best prepared by placing a sufficient quantity of the dry gelatine (I use a good quality of imported table gelatine free from flavoring or coloring matter) for the work in hand in a small china or enamel ware dish or cup, and just covering with warm water; then stand the receptacle in hot water until the gelatine is melted.

The mount or paper is next laid down, the print placed in the position desired, and light pencil marks made on mount at the top and left-hand edges of print, as a guide in getting it placed correctly later. If there are a number of prints of different subjects to be mounted in various styles, it is well to also write the title in the center of each mount to avoid confusion. Having attended to these details, the face of the mounting paper or card is evenly dampened with cold water, until it becomes somewhat limp. As soon as this occurs, the dry print is placed in position and immediately covered with a sheet of *dry* bond or other smooth, thin paper, and a warm flatiron applied, going over both print and mount until dry. The heat from the iron turns the water in the mount into steam, which quickly melts the gelatine, causing the print to stick firmly to the mount, and at the same time dries the latter so quickly that both contract evenly.

AN ENGLISH LANE

H. T. ROWLEY, NEW YORK

Camera Club, New York, Annual Exhibition

Should the print not adhere properly, it shows either lack of sufficient moisture in mount or a failure to cover every part of the print with gelatine. If the mount curls up a little, it can quickly be flattened by slightly dampening the back and ironing. A backward curl would indicate that mount absorbed too much water. One or two trials will set any one right, and I only mention these things as a guide in case the first trial should not be perfectly satisfactory. I have used the method successfully for some time, both for booklets with thin leaves and prints on separate sheets of paper, and consider it the best I have tried.

General Suggestions on Mounting

When one wishes to use one or more "cut-out" mats over a print intended to be kept in a portfolio or under glass, three- or four-ply "bristol board" makes a good foundation to mount the print on, as it is stiffer than mounting paper and does not take up nearly as much room as a regular card mount. The print, being mounted solidly to the bristol board, allows the loose mats to lie flat.

A variety of pleasing and artistic effects can be produced by the use of oil or water colors, and those who have never tried it should provide themselves with a few brushes and colors to use in connection with the tinted mounts and papers. A tube of Chinese white water color and a bottle of India ink will be found very useful for running border lines. The white can be used in a pen by thinning with water, while for a broad line or tint both ink and white can be applied with a camel's-hair brush. When a brush is used, it is well to first run one or more lines as a guide for the brush, to insure an even edge. A thin wash of the white over gray paper produces a delicate silvery effect, which harmonizes well with some subjects. For brown-toned prints, sepia or vandyke brown can be used on buff or warm gray paper in place of India ink, while by mixing either the ink or colors with Chinese white to make them opaque, a light tint may be laid on a darker ground.

Oil colors can be used in a similar manner, tubes of black, brown, sienna, and white furnishing a variety of useful tints. The method of mixing and applying them I described fully in an article on "Decorative Mounts and Covers," in the January, 1909, number of American Photography, so will not go into details here. Aside from the novel effects which can be produced by their use when desired, the colors are often a convenience in furnishing just the tint needed for a particular subject, making it unnecessary to keep a great variety of mounting papers on hand, and also doing away with so many layers when several tints are wanted on one mount. In applying flat tints of color, all that is necessary is to protect the portions of the mount one wishes to keep in the original state, by holding a piece of thin, stiff paper, cut to shape, in place while applying the color along the edges with a circular stippling motion, taking care not to charge the brush (a round hog-hair is best) too heavily with the oil color.

As a hint to beginners, I might say, in conclusion, that it is well to avoid using a variety of colors on one mount. Several *shades* of *one color* is the safest where a single tint is not enough, and those are usually best which lie between the lightest and darkest tones of the picture. Two shades of gray, for example, will usually harmonize best with a black and white print, sometimes accented by a line of black or white, either close to the print or a little removed from the edge; but by all means keep the general tones of the mount within a limited scale, that the effect may be quiet and simple.

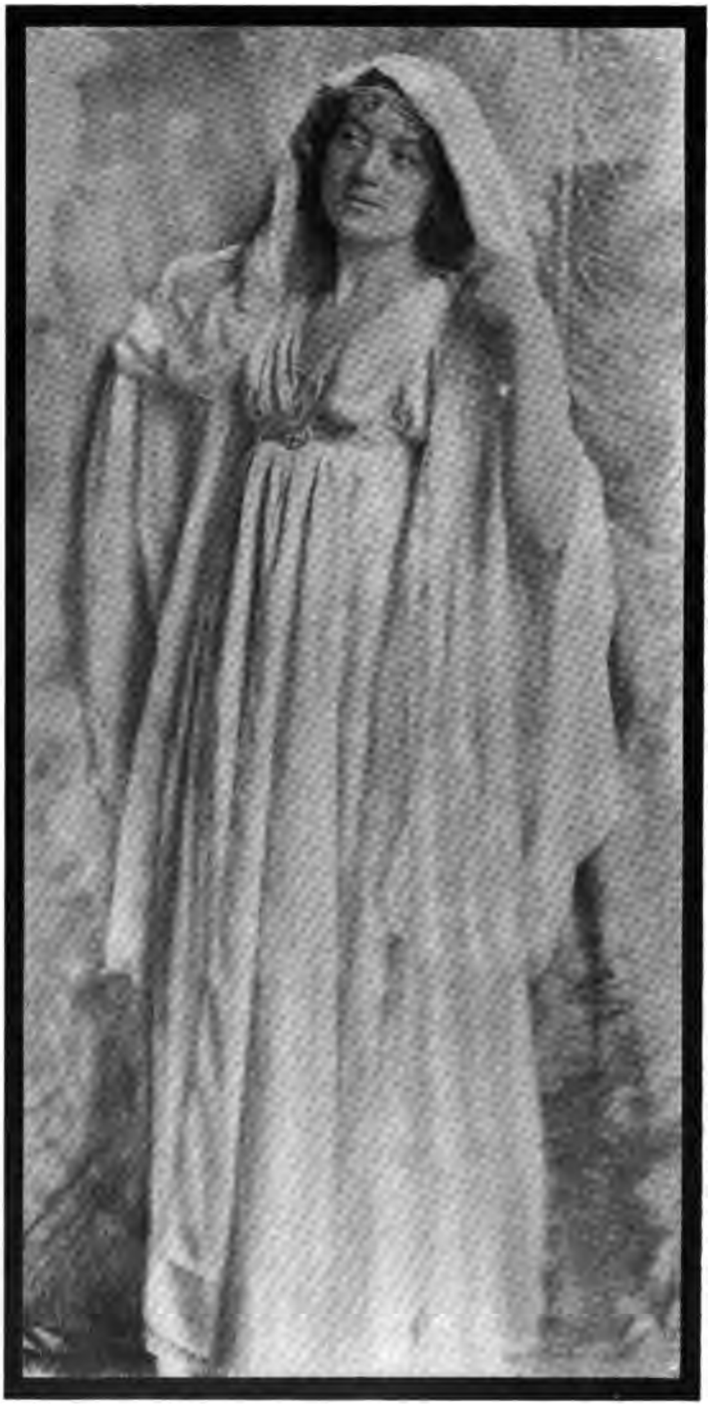
A NOTE ON HYPO ELIMINATORS

BY A FELLOW OF THE ROYAL PHOTOGRAPHIC SOCIETY

HYPO eliminators, as a whole, appear to have a very bad name amongst photographers, and as the old Scotch proverb says, "Gie a dog an ill name an' he'll soon be hanged." There are, however, hypo eliminators and hypo eliminators, some prefer one and some another, while the majority of workers prefer to use plain water for washing out the hypo rather than a chemical mixture for destroying it, for the simple reason that some of the chemicals used to destroy hypo are as harmful as hypo itself, and the negatives require a good washing in order to get rid of the hypo eliminator. One may, therefore, as well wash out the hypo as the hypo eliminator, as little or no time is saved if an eliminator dangerous to the life of a negative is used.

Many so-called eliminators have been recommended, as, for example, eau de Javelle (a mixture of carbonate of potash and chloride of lime), peroxide of hydrogen, alum, lead acetate, iodine, hypochlorite of zinc, and persulphate of potassium, and opinions appear to be about equally divided as to their usefulness.

The simplest hypo destroyer, in my opinion the best, and certainly the cheapest, is not named above. Many years of experience have proved to me that the best eliminator is potassium permanganate, if it is properly used. Some workers who have used it have given it up because of its staining properties, but no stains will appear if it is properly used and very weak. All the faults I have seen have been caused by using the permanganate solution too strong, such being used in the belief that a strong solution will act better and quicker than a weak one; but this is not, in my experience, the case. Another drawback to the use of permanganate has been the supposed impossibility of removing the stains should they appear; and they will appear if the perman-



A STUDY IN DRAPERY
CHAS. I. BERG, NEW YORK
Camera Club, New York, Annual Exhibition

ganate has not been properly dissolved, and an undissolved particle finds its way to the film, or the negative has been improperly fixed, or the permanganate solution not changed quickly.

Owing to the great susceptibility of permanganate to hypo it has long been in use for detecting the presence of hypo in the washing water, and as a guide to tell when washing is complete; but it appears that few use it for destroying hypo. Few text-books mention it, and yet it is unquestionably the best of them all. The weak solution is practically harmless, and owing to its brilliant color and the decided action of the hypo upon it, its work of eliminating the hypo can be very plainly seen.

The strength of the solution to be used should be 1 grain of permanganate of potassium to 1 pint of water (16 ounces), so that 1 ounce of permanganate will make 60 gallons of solution. It is not advisable, however, to make up such a large quantity at once. A gallon of solution, made by dissolving 8 grains in 128 ounces of water, will be quite enough for one or two negatives, according to size and amount of hypo in the film. Having mixed sufficient permanganate solution, the *modus operandi* is as given below:—

The negative after thorough fixing is taken from the hypo bath and rinsed in water. The rinsing may be a short one or a long one, as, obviously, the more hypo one can wash out the less will there be for the permanganate solution to destroy. Two or three minutes' rinsing is usually sufficient, as that is quite long enough to drive off the hypo from the surface, and there remains only that hypo in the gelatine film which the permanganate will quickly destroy.

After the plate has been rinsed it is placed in a white porcelain dish and the weak and pinkish colored solution poured thereon. The pink color will probably disappear at once, proving that hypo is present, as hypo in any form will rapidly discharge the pinkish color. The faded solution is at once poured off and some more of the pink solution poured on, this may not fade so quickly, but when it has faded it is poured away and some fresh permanganate solution poured on. The process is repeated again and again, until the pinkish color remains and is unchanged in appearance, which proves that no hypo is present in the film. The negative is then finally washed for a few minutes in order to get rid of the permanganate solution and slight pinkish stain, if any. The time taken will depend upon the amount of hypo originally in the film, but, generally speaking, about six applications will be enough, and the time taken less than ten minutes in all. If, however, the negative is well rinsed before the permanganate is applied, three applications may be sufficient and the time taken less than five minutes; whereas if the negative is not rinsed at all and there is a lot of hypo on the surface of the film, it may take a quarter of an hour or more to destroy. The rinsing after fixing is advisable, as stains are less likely to appear.

The secret of success is to use the permanganate solution very weak and to change it quickly. If allowed to remain in a used up or faded solution, brown stains are apt to appear; but there is absolutely no danger if the operations are properly carried out.

If a particle of undissolved permanganate finds its way to the film a troublesome and highly colored spot will appear. Such a spot has been thought to be irremovable, but it is not so. Care must, however, be taken to make sure that all the permanganate is dissolved. It is, for instance, a bad plan to add the permanganate to a bottle of water, as particles invariably remain undissolved around the interior of the neck; and should the solution be poured from the bottle direct to the plate, the particles of undissolved permanganate will rest upon the film and cause pretty colored, but troublesome spots. Caused in this or any other way, stain made by crystals of permanganate may be eliminated by soaking the negative for a few minutes in the following mixture: Water, 20 ounces; glacial acetic acid, ½ ounce; sulphite of soda, ½ ounce; finally wash. The formula given takes the highly colored stain out completely, leaving only a faint white mark where the stain was; a mark which does not interfere with the printing qualities of a negative, as a highly colored non-actinic stain would do.

PORTRAIT GERTRUDE KÄSEBIER, NEW YORK

Thus it will be seen that the elimination of hypo by means of permanganate of potassium is not only an extremely simple one, but cheap as well, and less dangerous to the life of a negative than any other eliminator of hypo that I know of. I have in my time used them all, but having proved the usefulness of permanganate, I have used no other regularly for many years. I use it now almost daily, because my business as a press photographer necessitates the most rapid means of washing and drying it is possible to have.

A PHOTOGRAPHIC AMUSEMENT

JOHN MADDISON, R.D.S., F.R.P.S.

SOME years ago a very popular form of amusement at bazars and other similar functions was the "Art Gallery," which consisted of various common objects in daily use, placed either separately or in groups to represent some given title, such title, neatly lettered, being displayed against each; for instance, such a title as "A stirring subject" was represented by an ordinary teaspoon laid on the table, or two such spoons were made to represent "A pair of lovers," and so on.

At other times the title cards were not used, but instead some one acted as lecturer, describing each subject as though he were speaking of some great work of art, much to the amusement of the audience. Then again the objects so arranged without titles, constituted a guessing competition, causing much fun by the variety and number of the titles suggested.

Recently this form of amusement has cropped up in photography, and at this time of the year is a very interesting kind of pastime, not only for the amateur photographer, but also for his family or friends, who are always delighted to join in the fun and excitement of suggesting objects and suitable titles for same.

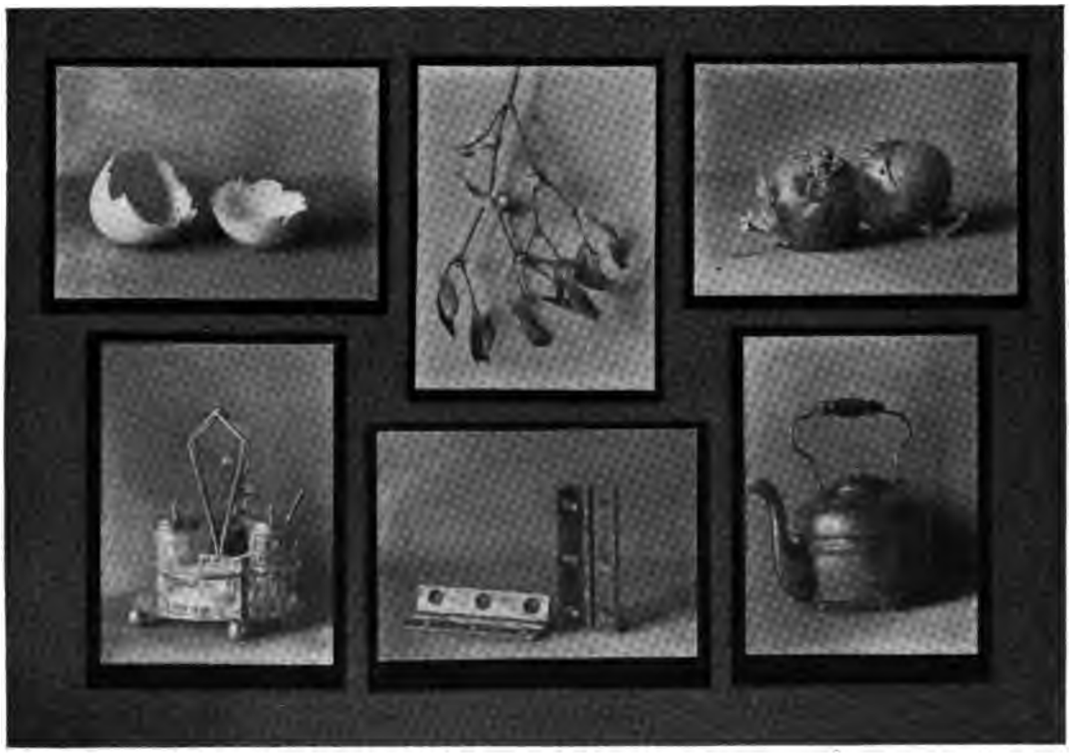
The amateur who has any experience in still-life photography would find these picture puns an endless source of amusement, either as prints, lantern slides, or post-cards, and the objects are mostly to be found in his own home, or he may procure them readily at little cost.

The principal object should be placed most prominently, and great care should be taken in arranging groups, so that they are neither crowded or too much divided. The objects should always be placed either a little way apart or slightly one in front of the other, — never just touching or never all in a line. The lighting should be very carefully arranged, say from a window about five or six feet from the group on left-hand side, the bottom half of window having been covered up with a black cloth, cardboard, or brown paper. The effect is much improved if a piece of white book muslin is stretched across about midway between the window and the object. On the right-hand side of the objects, and about one or two feet away, should be placed a sheet of straw-board or occasionally white cardboard, to act as a reflector, to lighten up the shaded side, being careful that this is not overdone, or the result will look as if light came from two sources. Always aim at making the most of your object; let it be bold, clear, and a good representative specimen of its kind, having its particular texture displayed so that it at once appeals to the eye as being of glass, wood, china, metal, etc.

As a guide to beginners, I may say that for the specimens reproduced, I used a medium shade of green art mounting paper for the back and foreground of each subject. They were taken with a rapid symmetrical f.8 lens, on rapid orthochromatic backed plates, developed with rodinal. Nos. 1, 4, and 6 each received about ten minutes' exposure at f.16, with a 3-times screen, whilst Nos. 2, 3, and 5 each received about five minutes at f.11, at mid-day on a fairly bright day in January.

The following are a few suitable subjects as examples of further picture puns: —

An Upright Ruler: Ruler on end.
The Wood Chopper: A chopper.
Tea on the Lawn: One half pound tea on a piece of lawn.
A Celebrated Composer: Soothing syrup.
Left to Die: Withered leaves.
An Hero of Waterloo: A Wellington boot.
A Glimpse of a Well-known Route: Beetroot.
The Babies in the Wood: Two wooden dolls.
A Match against Time: A match leaning against a watch.



The Deserted Home   An Excuse for Many a Kiss   The Silent Cause of Many a Tear

The Four Seasons   Things to Adore   A Popular Singer

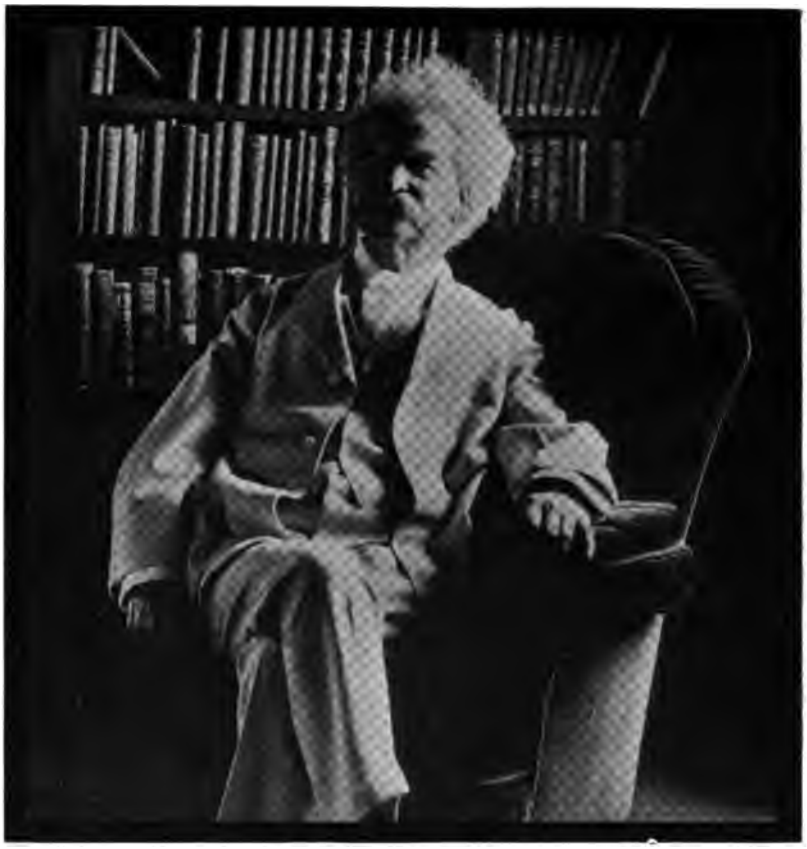
PHOTOGRAPHIC AMUSEMENTS
JOHN MADDISON

EDITORIAL COMMENT.

AN IMPORTANT EXHIBITION

IN another column we publish an announcement from the Albright Gallery of Buffalo, which, though dated April 15, reached us on May 10, and we understand was not issued until shortly before this date. This exhibition was originally planned by the late Charles M. Kurtz, the lamented director of the Albright Art Gallery, but his unexpected death caused the plans to be held in abeyance for over a year. From information which has come to us from various sources, it appears that the exhibition is to be managed entirely by the Photo-Secession. The exhibits will be hung in groups, separated from each other by being placed in alcoves of various size, according to the number of prints therein displayed. The main characteristic of the show will be its display of the work of prominent Photo-Secessionists of the present day. Each of the better-known members of this society will be accorded an alcove, as will some English photographers. To foreign countries, similar alcoves will be awarded. American exhibitors will be given space in a so-called open section. In describing the manner of selection for this open section, the announcement seems to display a quality which can best be designated as sarcasm. The inference to be drawn from it is that Americans have never before had "the opportunity of being adequately represented in an important exhibition." This statement seems to us to be far broader than is susceptible of proof. Apparently the various Philadelphia Salons, the Chicago Salon, the First to the Sixth American Salons, and other large picture shows, in many of which the Photo-Secessionists themselves have made a strong showing, were not important exhibitions.

In the matter of selection an entirely new principle seems to have appeared in photographic exhibitions. The announcement says: "The selection will be governed by the principle of independent vision and quality of rendering. To eliminate accidental successes, each exhibitor in this section must be represented by at least three examples." What the principle of "independent vision" may be is an enigma. Apparently because a certain photographer once made a beautiful picture of a lady standing in a doorway, all other portraits of ladies standing in doorways are not guided by "independent vision," and are violations of the artistic rights of the discoverer; similarly with crystal globes and brass bowls, which belong to other individuals, with spotted coach dogs and bathrobes flecked with sunlight, etc. The principle of "independent vision" would seem to require that every artistic photograph should be a distinct invention, a principle which would soon exhaust the possibilities of arrangement, and leave photography an empty and stranded wreck. The announcement that at least three prints must be accepted from each exhibitor is also a novelty in exhibitions. It appears to us that the purpose of an art is to produce results of beauty, qualified to awaken the higher emotions in those human beings who are fitted to appreciate these beauties.



MARK TWAIN GEO. AMY, NEW YORK
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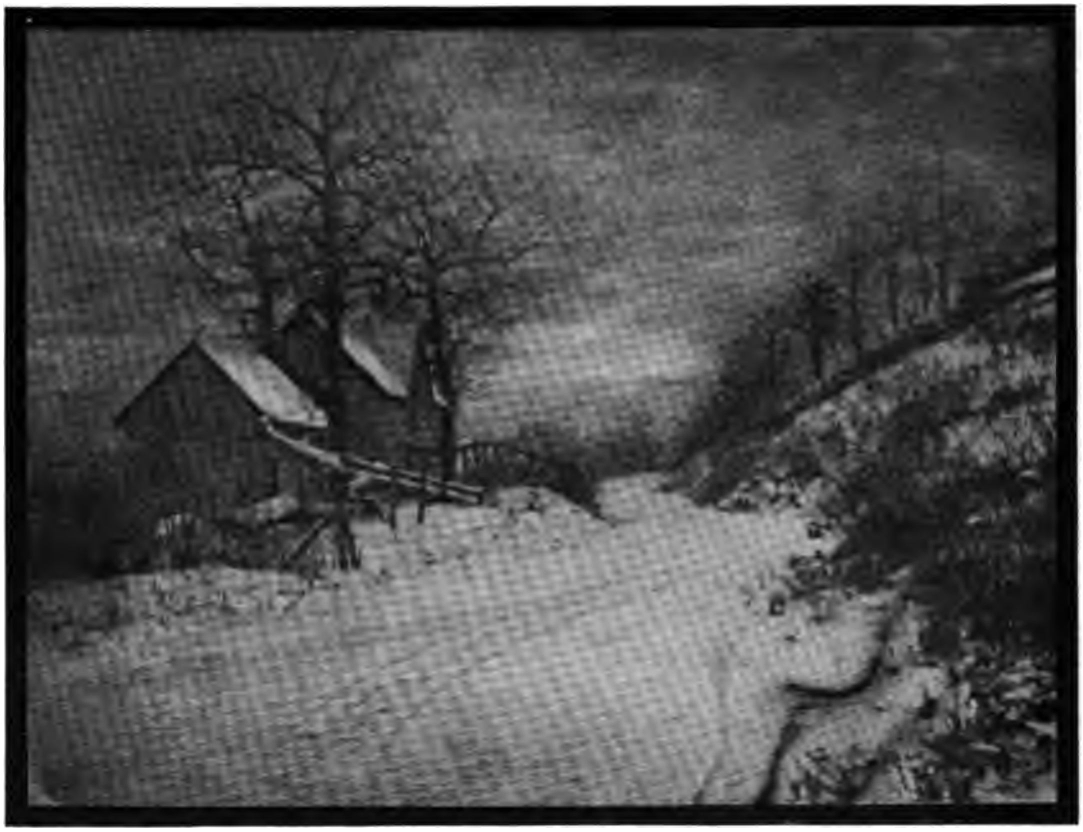
It seems to us that any photograph which represents a truth of nature in beautiful form, and which conveys pleasure to the beholder, is a success. It may be due to an accident of time or opportunity, but its presentation to the world is certainly a proof of the artistic perceptions of its creator. We do not believe that any picture which may be presented to a jury is less worthy because not accompanied by two others of equal merit. It is apparent, therefore, that this exhibition is to be one, not of pictures, but of men: primarily an exploitation of individuals, and not a presentation of beautiful results in photography. It is hailed by the current number of *Camera Work* as "an unequivocal and public recognition of the work done by the Photo-Secession in the interest of photography." We are sure that it will be most interesting to visit, but doubt that it will afford much opportunity to independent workers, under the conditions of entry as announced.

A BROWNIE TRIUMPH

We have at various times in the past received letters from our less-advanced readers, asking us to establish in our monthly competitions a special class for beginners. These requests have been based on the asserted fact that our prizes are monopolized by advanced workers, well equipped with apparatus, and by long experience enabled to do high-grade work. We have never seen fit to accede to these requests, because we have felt that free and open competition is the best stimulus to progress; and we have also failed to observe any preponderant ability to win prizes on the part



WINTER EVENING J. H. STOCKTON

First Prize, Monthly Competition

of our more advanced contributors. Since awarding the first prize last month, we are informed by the maker that this picture was taken with a Brownie camera, and lest some may be tempted to say that it was a chance snap-shot, we will remark that the maker had photographed this scene a number of times, but considered this print her best effort at this particular spot. This incident, we think, completely overturns the arguments of those who desire a beginners' competition. The Brownie is by no means an expensive camera, and if an amateur with this instrument can win first prize in a competition participated in by several scores of our readers, including many well-known pictorialists, it is one more proof that native ability will always insure success. In the hands of one who loves photography and nature, even a Brownie camera will win prizes, and without this enthusiasm the most costly lenses and apparatus are useless to their possessor.

OUR MONTHLY COMPETITION

THIS month, as the competition was a general one, we had, as usual, a very large number of prints, and they were, as usual, of extremely high quality. The judging was rendered unusually difficult by the number of pictures of more than average merit. After long debate, the choice of the judges for first prize was a very pleasing print, entitled "Winter Evening," by J. H. Stockton. While this was a difficult picture to reproduce, our half-tone gives a good idea of the fine massing of this excellent winter scene. The second prize was awarded to "A Summer

A SUMMER AFTERNOON HENRY THEW STEPHENSON

Second Prize, Monthly Competition

Afternoon," by Henry Thew Stephenson, a simple grouping, in which the clouds are indispensable to the artistic success of the print. The thrid prize was awarded to "Chums," by J. H. Berkemann. Unfortunately, the texture of this print was such that our engravers were unable to make a reproduction of it. We hope to be able to get a more suitable print and reproduce this in a later number.

The honorable mentions were twenty-six in number, as follows: "The Stray Cat," by R. I. Barber; "The Scout," by Nick Bruehl; "Sumach, June," by C. W. Christiansen; "The Woods," by F. L. Clarke; "The Waning Light," by H. B. Conyers; "Portrait," by M. F. Ensminger; "Apples," by Robert Ervien; "Peeling Potatoes," by Chas. Fahlk; "In the Quarry," by Lewis J. Fitler; "The Sylvan Stream," by A. B. Hargett; "The Winding Stream," by J. K. Hodges; "In the Swing," by Carl Krebs; "A Spring Path," by L. L. Loring; "Onions," by John Maddison, R. D. S.; "Foul Play," by A. E. Mellor; "Chrysanthemums," by R. C. Minich; "Portrait of W. C. N.," by Ansel W. Newman; "Tree Trunks," by Harry G. Phister; "The Hill Burn," by J. Herbert Saunders; "Golden Autumn," by H. Y. Sümmons; "To the Fishing Grounds," by James Thomson; "A Yellow Rose," by U. LeRoi Upson; "Light and Smoke," by Geo. H. Wender; "The Gloaming," by Wm. Wheelock; "An Old-fashioned Girl," by Harry D. Williar; "The Print Collector," by Frank Wolcott.

OUR PORTFOLIO.

Prints for criticism under this heading should be sent to Frank R. Fraprie, 6 Beacon Street, Boston, Mass. Only one by each reader can be criticized each month. Prints are not returned after criticism. An asterisk indicates that the print is reproduced.

537. R. E. **Herrick**. — You have here a very attractive and pleasing snow scene. The arrangement of the material is commendable, and the technical work excellent. We would suggest possibly trimming one half inch from the left to get rid of the telegraph pole, and the same amount from the right to keep the tree from then being too central.

538. K. L. **Thompson, Jr.** — "Nature's Home." This is a well-arranged landscape in its main features. The branches in the foreground are a little bit thick, and the lines rather conspicuous, owing to the long exposure necessarily given under the trees. Your water is not satisfactory, as it has lost its characteristic qualities. If you would darken in printing the upper right-hand corner, so as to cause the light in the center to be the single object of interest, you would much improve the print.

539. **Willard Maule**. — "Drifting Snow." Loose snow driven by a high wind is a difficult subject to photograph, and the principal result in the picture before us is to obscure what might be interesting lines in the snow and blur the distant woodlands. The arrangement is interesting, but the technique is not wholly satisfactory, the print being too gray and flat.

540. E. **Stanley Thomas**. — "Winter." Apparently your negative is somewhat too dense to print out well. The snow values seem to be buried, when the remainder of the print is properly printed. If you could bring out the detail, which evidently exists in the snow, a little more brilliantly, without overprinting the shadows, it would improve this print, which is a good record of the subject.

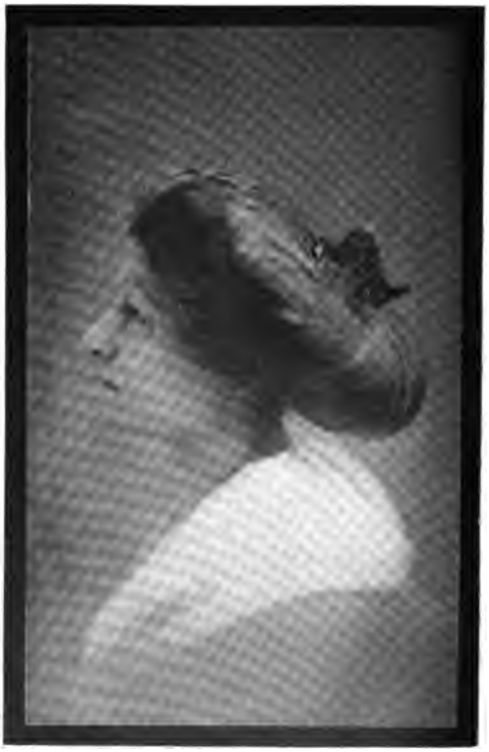
541. C. W. **Cramer**. — "Fountain, Lynn Cemetery." This enlargement shows rather too great magnification, or else improper focusing, being too diffused. In addition, it shows strong falling off in definition from the center to the margin, proof of an insufficiently corrected lens used, either in the taking or the enlarging. Had it not been for this, it would have been a good and well-arranged picture of the subject, although the contrasts are somewhat strong. In response to your question, we do not know any reason why water scenes should be more contrasty than other landscapes. The aim of the artistic photographer is to reproduce some effect which he has seen in nature, and his contrasts should be those of nature.

542. H. M. **Brooks**. — This picture of a china painter is an interesting composition. The background is not ideal, and the spots of pictures, telephone, and wall paper have no apparent reference to the rest of the composition; but it is a good home portrait.

543. **Forman** G. **Hanna**. — "In the Depths of the Canyon." Apparently you had a difficult subject here, as the illumination in the shadows of this tremendous gorge must be very deep. You have, however, chosen a favorable lighting and scored a technical success.

*544. E. C. **Ames**. — "Morning Mist." You have an excellent rendering of the clouds and mist driving over the distant peaks. To obtain this, however, you have given somewhat too short exposure for the foreground, and have sacrificed values here. At the same time, the picture gives a pleasing impression of a delightful morning phenomenon.

545. C. A. **Swoyer**. — "The Frozen Fountain." This beautiful fountain, a mass of icicles, is a most interesting subject for a photograph. You seem, however, to have given somewhat too short exposure, leaving the trees and all objects in the background jet



549. CHAS. JUNG

544. MORNING MIST E. C. AMES

black, while the ice does not have its natural brilliancy. It is too bad you could not have judged your exposure correctly for this rare phenomenon.

546. F. E. **Crum.** — "Interior." This is a fairly good piece of interior work, but shows insufficient exposure and over-development, producing lack of detail in the tiles and other white objects. Your group is well placed, but so much so that it takes the attention away from the interior, yet is not of sufficient importance to make the picture purely a group photograph.

547. **Harriet E. Williams.** — "The Embryo Artist." This print shows very serious under-exposure. The placing is interesting, although the subject is one which has been done over and over again.

548. **Hans A. Eriksen.** — "Early Spring." This print shows an interesting and picturesque spot, rather full of detail, but on the whole a very creditable picture. A large part of the beauty of the picture lies in the reflections, and it seems to us that you might have emphasized this feature somewhat more by choosing another viewpoint, so that the section of bank would not have appeared in the foreground of your picture.

*549. **Chas. Jung.** — This is a very good portrait. We do not like the vignetting and would suggest that you trim a half inch from the bottom of the print and about the same amount from the top, thereby filling the space much better.

550. L. T. **Phillips.** — Your landscape shows signs of serious under-exposure and over-development. You have a pure white sky, with considerable halation, which clogs up the smaller branches of the trees. All your shadow details are merged into indistinguishable black masses. In addition, the foreground is filled with a tangle of shrubs and leafless branches, which almost shut out the view of the distance, which might have been interesting by itself.

551. **Anna Beckstrom.** — "The New Vase." Your home portrait is probably a good likeness; at the same time it has some technical faults. The negative seems to have many pinholes in it so that the print is covered with small dark spots. Your sitter seems to have closed her eyes at the critical time, so that the face lacks expression, owing to the blurr of the eyes. The table seems to have no excuse for being in the picture, and its strong carvings and high lights do not add to the composition. Trim about three quarters of an inch from the top and you will have a much better filling of the spaces.

552. A. L. **Castle.** — "In Colonial Costume." This print is so flat as to suggest serious over-exposure and under-development. Had you made a better negative you would have had an interesting portrait.

553. **Carl A. Anderson.** — Your photograph of a hunter aiming at the dead carcass of a deer in the shrubbery is not convincing. Your print is made on too contrasty paper, and a softer working variety would have produced a better result from this negative.

*554. **Elmer R. Korf.** — "A Country Road." You should have given three or four times as much exposure as you did on the date you mention. This would have produced a more truthful sky and better values in your shadows. The arrangement of your print is very interesting, and the only criticism we have to make is the use of a lens of such short focus as to make the road far too wide in the foreground.

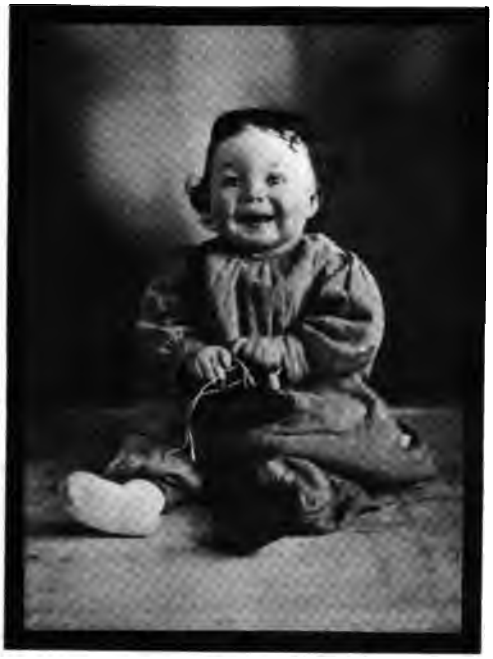
555. L. C. **Crossman.** — "At Home Portrait." Your negative is too contrasty, and your print too flat. One is the fault of the edge lighting adopted, which, while interesting at times, should be used with discretion. The other is the fault of the paper, which always works flat. In using this illumination, where the sitter is placed between the camera and the light, you should avoid a multiplicity of detail in hat and dress, as it is advisable to concentrate the attention on the profile, without distracting lights in other part of the picture.

556. J. M. **Kane.** — "A Bit of Woodcraft." Your object doubtless in making this picture was to bring out the grain of the wood and to show the results of your handiwork. In this you have succeeded fairly well, although we should judge that the exposure was not quite sufficient.

557. **Mrs. C. T. Ellsworth.** — "Baby's Bath." This is a record of interest to the parents, but has no claim to artistic merit.

554. A COUNTRY ROAD ELMER R. KORF

563. A COUNTRY BRIDGE GEO. A. NELSON



566. BABY IN HIS ROMPERS M. L. McNEIL

558. J. **Frank Curtis.** — "Jack Frost." We do not see any appropriateness of this title, there being no evidences of the action of frost in this murky pool in a tangled swamp. Such a subject as this is possibly of interest as a record of the kind of vegetation to be found in such a dismal location, but it has in our eyes no pictorial interest, owing to the confusion of distracting detail.

559. R. L. **Hunter.** — "Flashlight Portrait." This portrait fills the space well and seems to have proper exposure. The lady's expansive smile may be characteristic, but is not especially artistic. Judicious retouching will soften some of the many harsh lines in the face and probably make a more pleasing picture for the subject thereof.

560. **Burdette Harrison.** — "The Birches." We can find little to commend in this print. Taken against a strong light and given far too light exposure, it suffers badly from halation, and also from the inevitable chalkiness of under-exposure and over-development. The birches themselves are so disfigured by the innumerable strips of bark peeled from them that they offer no subject for a photograph.

561. W. H. **Fortune.** — Your snow scene in a park does not have the brilliancy which you might have given it. The snow is rather lacking in detail, and is represented by stretches of pure white paper. Probably this is due to its being taken on a dull day, as the exposure seems to be otherwise quite satisfactory. This is a good record, but you have got rather too many objects in a limited space. The numbers F-8, F-6, etc., indicate working aperture of the lenses, and are used as measures of the speed of a lens. Further information can be had in any handbook of optics, but we could hardly go into it in the space at our command here.

562. **Jay Satterle.** — "Sunset." The medium which you have adopted for printing this sunset, a sepia-colored paper, is not the best you could have used. This is a type of picture often seen in the work of amateurs, and is equal to the average of such attempts. In order to get an imitation moonlight which will be pleasing, it should be taken over water, which gives interest to the foreground.

*563. **George A. Nelson.** — "A Country Bridge." This is a pretty picture, full of life and sparkle. We do not see that you could have improved your arrangement, and you have certainly got the effect of sunlight very nicely.

564. H. S. **Bracken.**—"Window Portrait." This seems to be a very good example of home portraiture. The shadow side of the face is well illuminated and it seems to be a good likeness. It would have been a little better had you got light enough on the right shoulder to bring this out against the background, and we would prefer a rectangular trimming to the oval which you have adopted, as the head is rather too crowded in the space.

565. H. **Gorley.** — "Miss J. M. W." This portrait is not very well lighted. Your illumination is such as to bring out the lines in the rather gaunt face altogether too strongly. The strongest light is on the nose, making this feature very conspicuous, a serious defect. You seem to have been rather too near the sitter, so that the lens you used did not have enough depth of focus to bring both shoulders sharp at the same time, and this has also resulted in making the hair of the sitter fuzzy in spots. Place the camera a little farther from the sitter the next time, and do not try to make so large a head on so small a plate.

*566. M. L. **McNeil.** — "Baby in his Rompers." A very interesting little portrait of a child, full of good humor, and caught at a very happy moment in his existence. We would prefer to see a less conspicuous background, but otherwise could suggest little improvement in this print.

567. B. C. **Beardsley.** — Your little group of three girls on a lawn is taken in too bright sunlight, and forced in development, the result being a contrasty print, without detail in the white dresses. Under such circumstances, more water in the developer would produce a much more harmonious negative and print.

*568. D. E. **Pierce.** — "Sisters." This group of two girls on a lawn, unlike the last one, has had proper exposure, and the result is full detail in the white dresses, and a soft, pleasing, and harmonious print throughout. It should be very attractive to the subjects, and is an excellent piece of straightforward photography.

569. **Jules A. Bourquin.** — This print of the same spot as that we criticized last month, but taken from a different view-point. is more interesting, but we think that a section of the plate makes a better print than the whole. The chute itself, with its mass of broken stones, does not add to the beauty of your foreground, while

571. A RAINY DAY J. H. STOCKTON

the quiet stream above the dam makes a very restful and pleasing picture. One of the small prints which you sent with the large one shows this uper left-hand corner by itself, and is an interesting composition. The print is rather too flat, and a different lighting might possibly give you a more brilliant result.

*570. **Dr. O. K. Phelgar.** — "Walker's Creek." This is one of the most interesting panoramas that have recently come to us for criticism. The hanging wood in the distance with the quiet stream leading up to it is a most picturesque subject. If you will trim this print, taking off about an inch and a half from the bottom, and the same amount from the left-hand end, it will, in our opinion, concentrate the interest and make a better picture. The technical work is excellent.

*571. **J. H. Stockton.** — "A Rainy Day." This print deserves nothing but commendation. The spacing, tones, and values are all excellent, and the print would have received honorable mention had not your other picture obtained a prize.

572. **Robert Ervien.** — "The Fiddle Maker." This is an excellent genre study, possibly a little bit flat, as you have printed it, but this is probably the tone which you have chosen as most satisfactory. The fiddles hung on the wall behind the worker are perhaps a little distracting, and the print might gain if you trimmed an inch and a half or so from the top; but this is a matter of taste.

573. **Otto Schaal.** — "Second Beach." Your negative is a little dense, showing a pure white sky and shadows lacking detail in their deepest portions. This is evidence of incorrect exposure, with probably forced development, otherwise the picture is an interesting record of a pretty spot.

574. **M. F. Ensminger.** — The print criticized is that called No. 3 by you. The technical work seems to be very good. The principal criticism we have to make is in the arrangement of the sitter. The woolen shawl across the shoulders is too conspicuous in its pattern, and would better have been omitted, as would the white flowers in the hair and the bow at the back of the neck. Had this been done, the picture would have been much simpler, and attention would have been directed to the face, where it should go.

575. **A. E. Mellor.** — "Path through the Woods." This print is so much enlarged, or otherwise diffused, that it has lost almost all of that indefinable but essential point called quality. In other words, there is no semblance left of any distinction in texture. The earth of the path, and the something under the trees, and the shadows of the wood are all represented by meaningless smudges of color. In your effort to gain simplicity of massing, you have sacrificed truth of portrayal, and the one does not compensate for the other.

576. **LeRoy Van Anden.** — "A Gate in Winter." This print is almost perfection in its truth of rendering of all the values. If you had chosen a more attractive subject, you might have made a snow picture of the highest quality, with this exposure and such surroundings. It is a pity that such absolutely perfect technique was wasted on this gateway, which has no interest to anybody but the owner of the property.

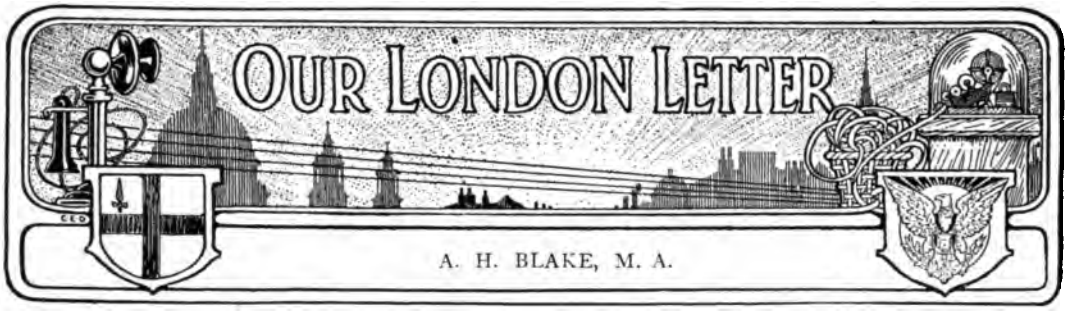
577. **J. W. A. Cairns.** — "Winter Scene." The composition of your print is interesting, but it seems to be quite lacking in quality. The snow is wholly without detail, and the extremely rough paper which you have chosen does not improve matters. As you have so much detail in parts of the negative, we think it veryprobable that you could, by using a soft working paper, get more values in the snow.

578. **U. LeRoi Upson.** — "A Yellow Rose." This is a very pleasing and satisfactory portrait, and has been awarded honorable mention in our competition this month. We feel, however, that it is much cramped in the oval trimming which you have adopted, for which no reason exists, and that a rectangle would be a very much better shape for the print.

579. **R. I. Barber.** — This picture is a very excellent one and received honorable mention in the competition. Comparing it, however, with the picture of a boy holding a dog, which received a prize, the superiority of the prize-winning print consists partly in the fact that both boy and dog seem to be unconscious of the presence of the camera, while in your picture the boy is staring directly into the camera, and the cat is, too. The cat's face partly overlaps that of the boy, and they compete strongly with each other for attention. We think that you would have done better had you photographed the boy alone without the cat.

(*The Portfolio was closed May* 4, 1910.)

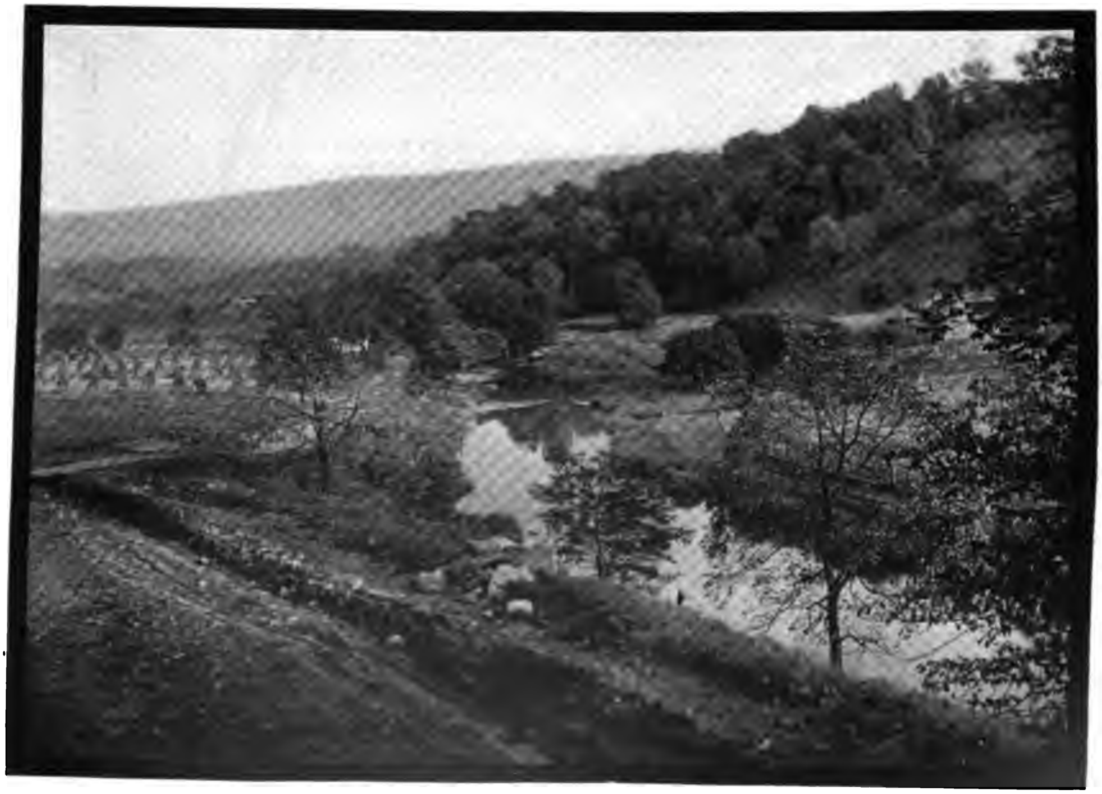
568. SISTERS D. E. PIERCE



OUR LONDON LETTER

A. H. BLAKE, M. A.

After long delay and a great deal of fruitless endeavor, we are at last glad to feel that London will have its own Camera Club again. It is a great inconvenience when our American friends visit us in London and we have no distinctively photographic club to ask them to, where they will, as a matter of course, meet most of the leading lights of the photographic world. Premises have been secured at 17 John St., Adelphi, which are being altered for our convenience and will, when completed, be admirably suited for the purpose. There will be billiard-room, reading and card-rooms, and a supply of photographic and general literature. As the catering has been the rock upon which so many of these clubs have fouled, it has been wisely determined by the committee to have only light refreshments, such as tea, coffee, the usual liquors, and such food as is generally required at luncheon; but dinners will be procurable quite near (in fact, a few doors off), at moderate charges. The kind of lectures that have been so popular in the Camera Club in the past will be continued, as well, from time to time, demonstrations in technical matters. A dinner is projected at the Café Monico, as a sendoff to the club. Personally I look forward to meeting and entertaining at the new club many of those American



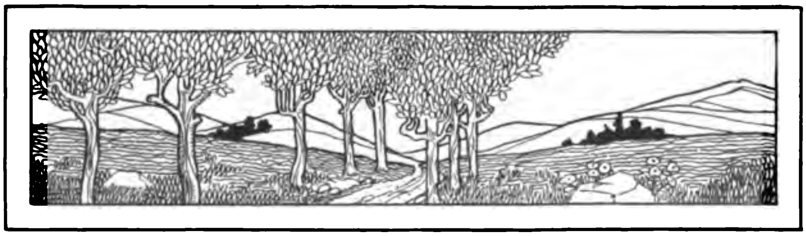
570. BIRD'S-EYE VIEW OF WALKER'S CREEK VALLEY — O. K. PHLEGAR friends whom I have not yet had the pleasure of personally meeting, as well as those who have already visited us over here.

As I write, another Coburn-DeMeyer exhibition has opened at the Goupil Gallery in Regent Street. There can be no manner of doubt that it is a strong show. The works are pretty evenly divided between the two artists and also in the matter of subject between portraiture and landscape. DeMeyer has several new effects, notably those obtained by throwing the shadows of objects upon a light, transparent screen, and photographing not the objects themselves, but only their shadows. The possibilities of decorative effect thus to be obtained are manifestly very great, and DeMeyer is not the man to lose them. Then, again, he has made great use of china figures in his decorative effects. Perhaps the one in the shape of a fan is not only the finest thing he has in this exhibition, but the best picture which he has yet produced. Then, again, he has gone out into the London streets *à la* the artist, A. E. John, and has gathered in some of their quaint and repulsive female types, mostly old, and they are quite remarkable in the brutal frankness of their presentment. Coburn is both strong and convincing. I am not sure that he strikes any new note, but he keeps up the standard of production. To my mind, the finest things that Coburn has yet done are to be found in his new love — the dramatic portrait. The "Blue Bird" series of studies of the characters in that play are remarkably good, and one of the best is shown in the exhibition. It is the character "The Oak," and has quite the effect of an old mosaic, though how effect is contrived I am quite unable to say. He has been using the graduated color screen with some effect, and one or two of his landscapes show how almost impossible combinations of cloud and landscape can be secured by its aid. He has also some remarkable portraits that have been taken by reflected light, with little, if any, aid from direct light. The results are sufficiently novel and interesting. When it reaches America, Coburn's latest picture of G. B. S. [our George Bernard Shaw] will both interest and amuse my readers. It hangs in the exhibition between two past presidents of the United States, and perhaps this somewhat embarrassing position of our only dramatist accounts for his unusual expression.

An excellently organized trade exhibition has just been held in the Horticultural Hall, Westminster. There were sixty stalls, containing all the novelties of some of our foremost manufacturers. In addition to these, lectures and demonstrations on various subjects were given, especially on the so-called spirit photography, it being asserted that in nearly all cases these effects could easily have been made by the faking of the negative or by double printing. Mr. Rd. Speight gave a capital lecture on "Child Photography"; it was illustrated by some sixty slides taken from the child pictures that have made the name of Speight famous on both sides of the Atlantic. One does not wonder at the success of Mr. Speight when one learns his methods, his love of children, his interest in their games, and his kindly character. Mr. E. O. Hoppe lectured on portraiture, and had a most enthusiastic reception from his brother professionals and there was also a useful lecture announced on "The Reflex Camera in the Studio." I do not know whether these distinctive trade and professional exhibitions are held much in America, but this experiment has been so successful that it will doubtless become an annual affair. Mr. Arthur Brookes of *The Photographic Dealer* was the animating spirit of the venture, and is to be heartily congratulated on its success.

Entry forms for the R. P. S. and also the London Salon of Photography are now ready, and should be applied for without delay; in the former case to J. Mackintosh, 35 Russell Square, London, W. C., and in the other, to Hon. Sec. London Salon of Photography, the Fine Art Society Gallery, New Bond Street, London, W.

On Tuesday, June 14, there will open, for the second time, a house exhibition, at 35 Russell Square, of the works of M. R. Demachy. I should imagine that the bulk of English pictorial photographers will look forward to this exhibition with as much interest as I do. It will be an opportunity of judging whether one's impression that the work of Demachy is not quite what it was some years ago, when he was giving us those fine, high-keyed subjects after the style of Degas, is correct or not. Perhaps he is a little "off" us over here, and has not been sending his best work. At any rate, a collection of his recent pictures will be of great interest, and cannot fail to excite much attention amongst his brother workers in this country. I shall hope to describe the exhibition more or less in detail later.



SOCIETY NEWS.

RECOGNIZING photography as one of the mediums of expression in art, the Buffalo Fine Arts Academy will hold an exhibition of photography in the Albright Art Gallery in November, 1910.

To ensure the best possible representation, the arrangements have been placed in the hands of that organization which has done the most to promote this particular branch of art — The Photo-Secession.

The exhibition will be of an international character, comprising, in addition to the work of America, some of the best prints that have been made in England, Austria, Germany, and France. It will be retrospective, but also representative of the latest work.

Its distinguishing characteristic will be the "group system." Thus, in the first place, it will include the representation of a number of individual exhibitors, selected by the Photo-Secession; the work of each being shown in separate groups by means of the "alcove method" of hanging. Secondly, the aggregate of the prints from each of the foreign countries will be similarly displayed in separate groups. Thirdly, there will be a group exhibit of the work of Americans who hitherto have not had the opportunity of being adequately represented in an important exhibition.

Those desirous of exhibiting in the last-named "open section" are requested to send their prints, unframed, express prepaid, to 291 Fifth Avenue, New York City, where they will be judged by the Photo-Secession. All prints for this class must be delivered to the above address before September 10. The selection will be governed by the principle of independent vision and quality of rendering. To eliminate accidental successes, each exhibitor in this section must be represented by at least three examples. In the case of selected prints, the express charges will be refunded by the Albright Art Gallery, which will also defray the expense of returning them to their respective owners.

Any further information that is desired may be obtained by addressing the Photo-Secession.

BUFFALO FINE ARTS ACADEMY,
ALBRIGHT ART GALLERY,
Cornelia B. Sage, *Acting Director.*

THE fifty-fifth annual exhibition of the Royal Photographic Society of Great Britain will be held at the gallery of the Royal Society of Painters in Water Colors, 5A Pall Mall East, London, S. W., from Saturday, August 20, to Friday, September 16, 1910, and will be divided into the following sections: 1, Pictorial Photography; 2, Color Photography; 3, Natural History Photography; 4, Scientific and Technical Photography and its applications to processes of reproduction. The rules and regulations are similar to those of previous years in most respects. Entry forms, which must be filled out, may be obtained by writing to the Royal Photographic Society, 35 Russell Square, London, W. C., England.

* * *

THE Boston Camera Club has shown unwonted interest in its annual exhibition this year. The scheme proposed by the exhibition committee of dividing the club into two camps has proved unexpectedly successful, and it is evident at this writing that more members will participate in the annual exhibition than has been the case for many years. The pictures submitted for the exhibition were judged by the respective camps on Saturday, April 30, and it was found necessary to raise a proposed limit of thirty prints for each side to thirty-five, so that seventy-one pictures by nearly forty exhibitors were hung at the exhibition opening, May 9. In preparation for this event the walls of the exhibition room were newly hung with natural-colored burlap, affording a very satisfactory background for prints. Much interest was aroused as to which camp will win. The awards of prizes in the four classes was made by vote of the members of the club, at the meeting and opening of the exhibition, May 9.

The prizes, — first, second, and third in each of four classes, — were awarded by vote of the club, and are as follows:

Landscape. — F. A. Saunderson, "The Old Mill Pond"; Charles O. Dexter, "Autumn Sunset"; Herman Corbett, "Across the Marsh." Marine. — Ernest H. Washburn, "Off Nahant"; Frank R. Fraprie, "A Scottish Headland"; Wm. L. Manson, "Sunset in Hampton Roads." Genre. — Edward W. Boyd, "Pictures in the Flames"; Howard S. Adams, "Le Cygne"; Miss S. J. Eddy, "Spring Sunshine." Portrait. — Gurdon R. Fisher, "Portrait of Mrs. K."; Mrs. Maude P. Kimball, "Grace"; Miss Elsie Whittemore, "Miss R."

We hope to reproduce a number of the prize-winning prints, and some which were not thus honored, in our next issue, together with some criticism of the exhibition.

* * *

THE twentieth annual exhibition of the department of photography of the Brooklyn Institute of Arts and Sciences was held at the art rooms, 174 Montague Street, from April 23 to April 30. We are informed that the exhibition was of an extremely high character, but up to the time of writing the list of awards has not come to us.

* * *

THE Photographic Club of Baltimore City sends out monthly bulletins to its members in the form of postal cards, and from that issued on April 21 we learn that the club has been favored by several demonstrations given by Mr. W. F. Thode of the Eastman Kodak Company. These have much stimulated the interest of the members in portrait photography. The pictures of the fifth annual print competition were at that time on public exhibition, and the club was expecting a lantern slide exhibition to be held on May 3.

* * *

THE Royal Photographic Society of Great Britain has been notified of a special meeting of the members on Wednesday, May 11, for the purpose of altering the articles of association of the society. The counsel has been considering these changes for a year, and many important modifications have been made, principally for the purpose of simplifying the various routine procedures.

* * *

THE fourth annual meeting of the Montreal Amateur Athletic Association Camera Club was held on April 27 at its club house, Peel Street. The following were elected to their respective offices for the new year: A. M. Bryson, president; W. R. Allen, vice-president; Charles Adkin, recording secretary and treasurer; H. C. Stone, corresponding secretary. Committee: B. B. Pinkerton, P. S. Robinson, and Arthur M. Russell.

It was decided in the future to include a class at the annual exhibition for instantaneous pictures taken by the novice members with the camera held in the hand, which will no doubt encourage them to higher work. A number of outings are being planned and the instruction and experience derived will be of great benefit not only to the beginners but to the advanced members. Later demonstrations will be given on the work done and the prints criticized.

The vice-president, Mr. Allen, has kindly donated a cup for the best six pictures taken by a "green" member during the year 1910; a special exhibition for members only will be held, when these prints will be judged. Owing to the increasing membership the premises are to be enlarged with an additional dark room for the development of enlargements.

All communications should be addressed to H. C. Stone, 334 Craig Street, West, Montreal, Quebec.

* * *

PHOTOGRAPHIC SECTION AMERICAN INSTITUTE, 19 West 44th Street, New York. — On Tuesday evening, April 5, Mr. H. Snowden Ward, of London, England, gave his experimental illustrated lecture, entitled "The Marvels of Photography," with some of its curiosities, very successfully before a large audience. This was the last of his lectures for the winter season of 1909–10. On the next day, April 6, he returned to London.

In the winter of 1910–11 he expects to repeat his series of Shakespeare and Dickens illustrated lectures in the United States. He is a very fluent speaker, and has such an entertaining and instructive way in discussing his subject, that the interest never flags.

* * *

THE POSTAL PHOTOGRAPHIC CLUB MONTHLY BULLETIN. — The Album for May, 1910, was issued April 30, 1910. It contains thirty prints.

According to latest advices, the Albums now *en route* are located as follows: Album for December, 1909, at Montclair, N. J.; Album for January, 1910, at New York City; Album for February, 1910, at Boston; Album for March, 1910, at Burlington, Vt.; Album for April, 1910, at Pittsford, Vt.; "Experience" Note-book at Harrisburg, Pa.

Awards of certificates for prize-winning prints in the October, 1909, Album are announced; namely: To Mr. J. Will Palmer of Nashua, N. H., for print No. 19, entitled "Head, Hand, and Heart"; to Mr. C. F. Clarke of Springfield, Mass., for print No. 18, entitled "Portrait of Brother Schouler."

Many prints are needed for the Album for June. Members from whom prints are due will confer a favor by supplying, if possible, two prints, one for the June Album and one for the July Album. The Album last mentioned will be issued about June 15, if prints are received in season.

The "meet" of the club at Athens, announced tentatively in April Bulletin, will be held during the week commencing July 17, 1910. The following is quoted in part from the invitation of Brother Park in behalf of our Athens confreres: —

"We can't exhibit any congressional library or Washington monument, or take you to Mount Vernon, but we can show as lovely a combination of hill and river scenery in and around this valley as can be found anywhere. We will probably get next to nature by securing for headquarters a bungalow on the banks of one of our beautiful rivers, and there will be bass fishing, rowing, and bathing for those so inclined, and lots of chances for prize-winning landscapes within reach. Then we have in mind a visit to famous Watkins Glen, which is only a short distance from here, and is a nice trip by trolley."

This tempting invitation ought to insure the attendance of every member who can possibly arrange to be present. Those who contemplate attending are requested to notify Brother Park. We want to make this "meet" one of the most noteworthy events in the history of the club. G. A. BRANDT, *Secretary.*

* * *

AT the annual meeting of the Photographic Section of Academy of Science and Art of Pittsburg, held on Tuesday evening, May 10, 1910, the following officers were elected to serve for the ensuing year: Mr. O. C. Reiter, president; Mr. R. D. Bruce, vice-president; Mr. Frank L. Miller, secretary-treasurer; Mr. Brady W. Stewart, lantern slide director; Mr. H. F. Walbridge, print director. Executive committee: Mr. O. C. Reiter, Mr. Frank L. Miller, Mr. Norman S. Woolridge, Mr. Charles E. Minnemeyer, Mr. C. E. Postlethwaite. The Pittsburg society has membership in the American Lantern Slide Interchange and the Camera Club Print Interchange, and expects to work with renewed vigor in all lines in the coming year.

Material for examination and books for review may be sent to Frank R. Fraprie, 6 Beacon Street, Boston, Mass. Any book reviewed will be supplied by our Boston office at the price mentioned.

THE SCIENTIFIC AMERICAN HANDBOOK OF TRAVEL. With hints for the ocean voyage and for European tours and a practical guide to London and Paris. Compiled and edited by Albert A. Hopkins, Editor of the Scientific American Reference Book. Five hundred illustrations. New York, Munn & Co., 1910.

To any of our readers who may be contemplating an European trip now or later, we can commend this book as bringing together more miscellaneous information on travel and subjects of interest to travelers than is easily to be found in any other form. The contents of the book are so varied and comprehensive that it is impossible to give any catalogue in the space at our command. Suffice it to say that to one who is planning a trip the book will offer information which many an experienced traveler learns only at great cost, after many voyages. The book is especially valuable in the portion which will interest the traveler at sea, and possibly its greatest value will be in answering all of the thousand questions which inevitably come up in the course of a transatlantic voyage. After the plans are made, and the traveler has begun his land trip on the other side the book would not be so useful, and could well be left in the steamer trunk for diversion on the homeward voyage. It is in no sense a guide book, but merely a book of preparation for traveling, although it contains valuable information on the laying out of tours.

* * *

HOW TO STUDY BIRDS. A practical guide for amateur bird-lovers and camera-hunters. By Herbert Keightley Job. Illustrated with photographs from life by the author. New York, N. Y., Outing Publishing Company, 1910. Price, $1.50, net.

This is a most valuable book for those who wish to become acquainted with the feathered denizens of the fields, the woods, or the shore. In the first part of the book, Mr. Job speaks with all the enthusiasm of the born naturalist, describing the way in which one may learn to know birds. He tells how to identify the various species, how to find them, and describes their nesting times and habits. He then gives several chapters on the photographing of birds, detailing the outfit and methods of using it, and describing work with both ordinary and reflecting cameras. This, of course, is the most interesting part of the book to our readers, and gives much valuable information, which it is difficult to find told elsewhere as well and as practically.

* * *

THE annual report of the directors of the Eastman Kodak Company, transmitted to the stockholders at the annual meeting in Jersey City, April 5, shows extremely large profits for the year. The dividends paid were six per cent on the preferred stock, and thirty per cent on the common, totaling $6,226,152.00. Although nearly $5,000,000.00 have been reserved for depreciation and renewal of plant, the present surplus is $8,413,025.69, an increase over the previous year of $626,422.92. We append herewith a detailed statement of the liabilities and assets, as shown by the report: —

LIABILITIES

Capital Stock

Authorized: —			
100,000 shares preferred stock of $100 each			$10,000,000.00
250,000 shares common stock of $100 each			25,000,000.00
			$35,000,000.00
Issued: —			
Preferred stock			$6,165,700.00
Common stock		$19,586,200.00	
Less in treasury		65,500.00	
			19,520,70.000
			$25,686,400.00
Current liabilities: —			
Accounts payable		$741,358.74	
Dividends declared: —			
Quarterly dividends (payable Jan. 7, 1910)			
Preferred	489,655.00		
Common	489,655.00		
		582,140.50	
			1,323,499.24
Funds and reserves: —			
Capital purposes		$125,322.97	
Renewal of plant		3,250,000.00	
Depreciation		1,534,659.44	
Contingencies		69,449.16	
			4,978,431.57
Surplus			8,413,025.69
			$40,401,356.50
ASSETS			
Cost of properties, including real estate, buildings, plant, machinery, patents, and good will			$26,152,142.83
Deferred charges to profit and loss account (insurance, taxes, etc., paid in advance)			99,062.37
Current assets: —			
Merchandise, materials, and supplies on hand		$5,755,817.47	
Accounts and bills receivable (net)		2,114,628.96	
Marketable bonds and stocks (Market value, $3,212,311.24).		2,828,387.70	
Cash: —			
On deposit at interest, $2,090,507.91, and at banks on current accounts and on hand, $1,360,809.26		3,451,317.17	
			14,150,151.30
			$40,401,356.50

* * *

ALBERT O. FENN, secretary of the Eastman Kodak Company, died unexpectedly from pneumonia, on March 26. Mr. Fenn was born in 1861, and while his life was spent in banking, he owed his financial prosperity to his association with the Eastman Kodak Company. He was a schoolmate of Mr. Eastman, and when the firm of Eastman & Strong was in its infancy, he invested $1200 in its stock. At the time of his death, he still owned this block of stock, which was then worth at the market price, $69,000, and had paid him $39,000 in dividends. Mr. Fenn invested largely in kodak stock, at every possible opportunity, and at his death was worth several millions.

* * *

A RUMOR recently went a round of the foreign photographic press to the effect that the Eastman Kodak Company had purchased the Lumière and Pathè factories. The story, however, has been circumstantially denied by Mr. J. E. Brulatour, American sales manager of the Lumière Company, and it is also stated that film relations between Eastman and Pathè Freres have been severed. For these items of information, we are indebted to our new contemporary, *The Photographic News*, whose initial number was published in New York under date of May, 1910. This is intended to be a trade journal, devoted to the news of the photographic trade.

* * *

CLARENCE H. WHITE, the well-known photo-secessionist, will conduct classes in photography at Seguinland, Me., from July 5 to 26 of this year. He may be addressed for the present at 5 West 31st Street, New York, and will be glad to furnish full information as to the course, accommodations, and methods. Mr. White, besides being one of the recognized leaders of the present day of pictorial photography, is exceptionally well fitted to conduct such a course. For the last three years he has lectured on the art of photography at the Teachers College of Columbia University, and has also conducted, with great success, photographic classes for the Brooklyn Institute of Arts and Sciences. The work of the students in this course will also be criticized by Mr. F. Holland Day, of Boston. Seguinland offers abundance of interesting material for camera workers, and in our opinion this course offers a rare opportunity for those who would progress in pictorial photography to combine a pleasant vacation with most profitable instruction.

* * *

AMONG the specialties manufactured by the Photo Crafts Shop, Racine, Wis., are monochromatic blue glasses intended for the use of landscape photographers. As is well known, the attraction of color on the ground glass leads one to make many exposures which do not produce useful results. Such waste of plates may be avoided by the use of monochromatic blue glasses, which show about the degree of contrast which should be reproduced on the ordinary plate. These very useful articles and many other specialties are listed in the catalogue of the Photo Crafts Shop, which will be sent free to any inquirer.

* * *

MESSRS. BURROUGHS, WELLCOME & COMPANY announce that, owing to the extention of their American business, their New York offices have been removed to 35, 37, and 39 West 33d Street. This very central location is between Fifth Avenue and Broadway, and but a door or two from the Waldorf Astoria Hotel. In their new quarters, the firm will be pleased to receive visitors and to exhibit their specialties.

* * *

THE monthly notes of the Illinois College of Photography gives the usual interesting picture of social life mingled with profitable study, along with news of the students of the past. We note that Mr. and Mrs. Bissell are now happy grandparents, since the arrival of a little daughter at the home of Mr. and Mrs. Joseph Magee of San Francisco. Considerable honors were won by former I. C. P. students at the convention of the Intermountain Photographers Association of Utah, Nevada, Colorado, Idaho, Wyoming, and Montana last month. Among the officers elected were former students J. C. Cooley, president; C. H. Gutter, secretary and treasurer; LeRoy Kellogg, vice-president for Colorado; C. D. Gallagher, vice-president for Nevada. First prize in Class A was won by Mr. LeRoy Kellogg, and first prize, Class B, by Mr. C. D. Gallagher.

* * *

THE 1910 catalogue of Graflex and Graphic cameras, manufactured by the Folmer & Schwing Division of the Eastman Kodak Company, Rochester, N. Y., is now ready for distribution. It may be had from all kodak dealers, or will be mailed on request to any of our readers if they do not happen to find themselves convenient to a dealer. As is usual with Eastman catalogues, the get-up is most attractive, as may be seen from the reduced cut of the cover published herewith. The catalogue gives a most attractive description of the advantages of the Graflex cameras, and then lists the various types and sizes now produced. Some attractive and wonderful illustrations beautify the book, and prove the capabilities of the various instruments listed. Every serious worker should be acquainted with this line, and should make it a point to procure this interesting catalogue.

* * *

ODE TO A COOKE LENS

Lines addressed to an old "Cooke" lens, sold some six years ago by a reader of the *Amateur Photographer*, England, and only recently repurchased by him: —

Canst tell me why, old lens with glasses bright,
I yielded to insidious pretences
Of others of thy race? For though such lenses
Full covered every inch of my emulsion,
Yet fool was I to compass thy expulsion
And send thee to the distant "ewigkeit."
Ah, Taylor, Taylor! It was *not* the voice
Of Hobson's choice.

Ah, for a space, 'tis true, the glass of Jena
Around me wove its mystic, potent spell,
Which led me on to barterings — to sell
Thy trusty form to unknown, alien hands;
And lo, thou wentest forth to far-off lands,
And left me but to sing a plaintive *scena*,
Lamenting my sad loss; ah, think of that,
Anastigmat!

But now again my willing fingers close
Around thine unpretentious "Unicum";
Again I gaze in admiration dumb
Upon thy shining, highly lacquered hood.
My joy, I ween, can well be understood,
And who will grudge the thought that paltry prose
Is quite inadequate to tell my glee
On meeting thee?

Full lovingly I work thine apparatus;
Once more thy shutter gives its "time" — its "½,"
Its "1-10th," and all the others; how I laugh
As once again I bid its noiseless blades
To open; then to close. Great joy pervades
(Accounting for this glad "divine afflatus"),
For nought in matters optical surpasses
Thy "simple glasses."

I wonder, as the weary years have flown,
What journeys thy successive owners took
(To emulate thy namesake, Captain "Cooke")?
What pictures, old objective, hast thou made
In cloistered close, in green and grassy glade
Since other flanges claimed thee from thine own?
Enough. With tender care, no more to roam,
I screw thee home.

Now, after stress of numberless exchanges,
To thee once more I gratefully return,
And others, by my song, may haply learn
That first attempts at purchasing one's kit
Are sometimes really right; think over it.
For he who 'mongst his friends a "deal" arranges
May find, too late, that 'spite of eager quest,
First love is best!

JAMES H. SMITH & SONS CO., 725 East 39th Street, Chicago, are the manufacturers of the Victor Portrait Flash Cabinet, a device intended for professional workers who desire to use artificial light in the studio. It consists of a cabinet in which the light is produced and the smoke confined. The flash-pan within this cabinet is surrounded by tantalum lamps, which give light enough to focus up and determine the effect to be produced. The front of the cabinet is covered with muslin, to make a diffusing screen. The flash may be ignited by caps or by electricity, and is fired by the pressure of the bulb which operates the lens shutter. Every professional photographer should get information as to this valuable device, and other flashlight appliances produced by the same manufacturers. The accompanying portrait was made on a Cramer Crown plate at night, stop F.5, with 3 grains of Victor Flash Powder fired in a Victor Portrait Flash Cabinet.

* * *

MR. J. O. JARRELL, for the past six years in the employ of the Bausch & Lomb Optical Co., has associated himself in business with the Topley Co., of Ottawa, Canada. Mr. Jarrell has many friends in the photographic trade who will join us in wishing him success in his new field of work. He takes with him the good will of his associates, who, while deploring his departure, are glad for the larger opportunities which are before him in Canada, where he will continue to exploit the Bausch & Lomb products.

* * *

THE Multispeed Shutter Company, 159 West 24th Street, New York City, N. Y., are placing upon the market a new type of developing tank intended for plates or flat films. In the ordinary tank the plates are held during the process of development in vertical grooves, and in some of the tanks on the market these grooves are so close together that the quantity of developer contained between the plates is insufficient for complete development, giving rise to various streaks and markings. While this peculiarity by no means appertains to all tanks used for vertical development, it is entirely avoided in the Novo tank, which allows for the horizontal development of the plates. Horizontal development, in undisturbed solution, has been advocated for some time by certain workers in Germany; but as it is a more or less slow process, it was not destined to become popular until the introduction of a tank for horizontal development has facilitated this method. The advantage of horizontal development is that it prevents the drifting of the image caused by changes in the density of the solution in a vertical tank, and its motion up or down along the surface of the plate. It is also claimed that in horizontal undisturbed development, over-exposure is automatically corrected by the complete exhaustion of the portion of solution in contact with those portions which develop up most rapidly. The tank is so constructed that any particular plate can be easily inspected or removed during the progress of the development without disturbing the others. Full information will be furnished by the makers on request.

* * *

ONE of the most pleasing papers for exhibition work and artistic effects is the Wellington canvas bromide. This paper can be obtained in either white or cream stock. The cream canvas yields beautiful rich sepias in the sulphide bath. Another new grade which is proving very popular is the thick smooth bromide, which lies perfectly flat when dry and closely resembles a platinum print in tone and surface. Ralph Harris & Company, 26–30 Bromfield Street, Boston, the United States agents for Wellington & Ward, England, will gladly furnish information on any Wellington products to all interested.

* * *

RALPH HARRIS, of the firm of Ralph Harris & Co., Boston, returned from abroad on the "Mauretania" last month, after making a visit to the factory of Wellington & Ward, whom his concern represents in the United States. He informs us that they are constructing new buildings to allow for the increase of business in their plates, papers, and films throughout the world.

* * *

THE Eastman Kodak Company, Rochester, N. Y., publishes under date of 1910 a pleasing and beautifully illustrated story book, called "Motoring with the Kodak." Even those who, like the writer, are not blessed with the possession of a motor car will find this booklet interesting. It will be mailed free to any reader of AMERICAN PHOTOGRAPHY who will send for it.

* * *

IN all great European cities one of the most popular forms of amusement is a visit to a Kaiser panorama. This usually consists of a large hall, around the walls of which are placed pairs of stereoscopic lenses. Making a tour of the room and looking into one after the other of these stereopticons, the visitor views a series of pictures of some noted locality or some recent event. Naturally in order to keep this form of amusement up to date, it is necessary frequently to change the pictures. The head office is therefore always looking for new subjects, and would very much like to get in touch with American photographers, amateur or professional, who make stereoscopic negatives. They are always willing to purchase any negatives of this character which may possess merit and interest, and will be pleased to have correspondence and samples of prints.

* * *

THE Double Anastigmat "Eurynar" is a German lens ground and mounted in Germany and is the product of the large and well-known optical works of G. Rodenstock, of Munich. The American Agents, James Frank & Son, of Augusta, Ga., sell these anastigmats on ten days' trial with the broad guarantee "satisfaction or price refunded." The price at which these anastigmats are sold will appeal very strongly to our readers, and we advise them to write for catalogue.

* * *

THE local view card is the card that never goes out of style. Other cards have their day and are forgotten, but the local view is the backbone of the business, — the cause of the business, in fact.

The National Colortype Co. of Cincinnati, Ohio, are turning out better cards every year and increasing their output as fast as they can install suitable machinery.

They can now deliver their high-grade hand-colored card in two to three weeks.

Ask them for samples and they will gladly send them if you mention AMERICAN PHOTOGRAPHY.

* * *

WE desire to apologize to the many amateurs who have so generously responded to our ad. in regard to the new formulæ book. We have met with a great many delays from various sources, in getting out this book, but wish to say that the book is now in such shape that we have every assurance that it will be in our hands by the 15th of this month.

Thanking the various amateurs for their kind indulgence, we remain,

BERLIN ANILINE WORKS.

* * *

THE Defender Photo Supply Co. of Rochester, N. Y., have just issued the Fifth Edition of their instruction book, "The Tipster." This little volume is a complete handbook on the subject of Defender products and their manipulation, and we advise every one who is interested in photography to send for a copy, which will be furnished free on application. The booklet is gotten up in very neat form, is attractively illustrated, and the instructions which it contains are very complete and comprehensive.

* * *

HAVE you tried making Sepias in first development? This simple and superior method is explained in the booklet which is being distributed by the Kilborn Photo Paper Co., whose advertisement appears in this issue. If you have not received a copy, send for one — they are free.

PROFESSIONAL NOTES.

MILWAUKEE, a regular convention city, which has the finest auditorium (in this or any other country) for convention purposes, will outdo herself in entertaining the photographers who will assemble there on July 12 to hold the thirtieth annual meeting of this association.

Four of the nearby state associations (Wisconsin, the Northwestern, Illinois, and Indiana) have abandoned their yearly meetings to meet with the National, which will insure the largest attendance.

The School of Photography will be bigger and better than ever this year, and finished results will be shown on Friday, last day of meeting. Mr. Ryland W. Phillips of Philadelphia, Dudley Hoyt of New York, and W. S Ellis of Philadelphia, the man who won the $500 Eastman prize, will constitute the school working by daylight, which will be in session each afternoon.

Mr. M. J. Steffens of Chicago will show what can be accomplished by artificial light. He will have a duplicate of his studies on stage at meeting with all his help and apparatus, and will make and finish work from start to finish, the same as he does in his studio, all by a light which he has perfected himself. He will be assisted by Frank Scott Clark of Detroit and Strauss of St. Louis, and other leading lights.

This will be the strongest drawing card ever offered by the association.

A lecture showing how backgrounds can be put in on any negative. The association has, at a great expense, provided a special apparatus to give this lecture which shows on a screen the work as it is being done by the artist on the plate.

An art lecture by Geo. W. Stevens, director of Toledo Museum of Art, also president of American Federation of Photographic Societies. Mr. Stevens is a deep student of art, who is in thorough sympathy with the photographers and will give us some new views along original lines.

A lecture by Ryland W. Phillips of Philadelphia on "Constructive Criticism." Mr. Phillips will select from the exhibition the best pictures and show on a screen reproduction of same, telling why they are superior. He will also show a great number that are not so good and will show along beside the original a reconstructed portrait which he has manipulated on the plate into a real picture. This lecture will be the most useful and instructive one ever given at any meeting.

A lecture by Mr. A. F. Sheldon, president and founder of the Sheldon School of Scientific Salesmanship, will be one of the best lectures on salesmanship ever delivered. Critics who have heard this wonderful speaker pronounce him the best there is in America on this subject.

A lecture by J. C. Abel on "Modern Publicity, or the Use of Printer's Ink to Increase Business." Mr. Abel is in every way adapted to handle this subject in the most interesting and instructing manner.

The $100 prize for the best invention, process, apparatus, or appliance pertaining to photography will be worth your while to investigate. This will bring out a great number of new and extremely useful things for photographers to see.

The Congress of Photography will meet for its second session, when the most useful subjects will be discussed pertaining to the profession.

The Women's Federation will have their art critic and lecturer, and this and their exhibit will be a great feature for this year's meeting.

Up to the present time the cream of the profession have promised to contribute three pictures each, which insures in point of quality the best exhibition of fine photography ever assembled in America.

The board will feature the hanging and arranging of the pictures this year. Every picture will be hung in a line, and as we have a regular art gallery softly lighted from above, we can promise every exhibitor an equal show of lighting.

After six months of pleading for a special rate by the board, the best the railroads would offer was fare and one third if one thousand certificates could be procured. The board could not guarantee this, as only five hundred were secured last year at Rochester, and it was the largest attended meeting in the history of the association. Members are advised to take advantage of a summer tourist rate to several points near Milwaukee. One of these resorts is Waukesha. There are several others, and by courtesy of your railroad agent you can acquaint yourself fully with the places where the rate is in effect from June 1 to October.

* * *

Gentlemen, — The executive committee of the Nebraska State Association held their annual committee meeting in the Lincoln Hotel, Lincoln, Neb., February 10, for the purpose of arranging plans for the Convention of 1910.

All officers present as follows: F. E. Taylor, president, H. L. Boston, 1st vice-president, G. W. Godding, 2nd vice-president, Ralph R. Roszell, secretary, W. S. Soper, treasurer.

All the advisory board present except A. C. Townsend. Those present were as follows: Past president, C. J. Fennel, past president, John F. Wilson.

The Art Hall at the State University was selected as the place of meeting for the twenty-first annual convention to be held on the following dates, September 27, 28, 29, 30, 1910.

Last year we were rated by manufacturers with the largest number of exhibits of any State convention for the year 1909. This year we aim to increase that number and swell our membership to the utmost.

With three national men to serve as judges we assure you that with their broad-minded and conservative knowledge of photography you can rest assured of a fair rating to all.

A new class was created which was named the "Special Class" and was given rank between the class of "Children's Class" and Class "A."

First prize in this class will be a large bronze bust, such as would be one of the most attractive trophies to the winner, for any photographer's reception room. Second prize, fine gold medal. Third prize, silver medal.

The question with reference to the percentage necessary to win in classes C, B, and A, was made 65, 70, and 75 respectively. In all other classes, 80. This is a very low percentage necessary to win. Our average percentage on exhibits rated last year, 1909, averaged 91 per cent out of 100 points. Nothing slow for Nebraska. We do things right and have the right kind of photographers back of us, that made our last convention and will make our 1910 N. P. A.

If you are a non-member you will do well to join our ranks. The Nebraska Photographers' Association stands for "protection," the upbuilding of photography in an intelligent and financial manner. The association is forming a great question box whereby questions that confront the photographers directly will be considered, weighed, and made right to the best of our ability.

If you are a photographer in good standing in your community and eligible, I shall be only too glad to enrol you as a member of the N. P. A. by writing me your desires, and say to those outside of this State and not members elsewhere, I shall be glad to enrol you. We have on our enrolment only photographers that are the cream of our State.

What higher credit can you give your studio, than being a member of the Nebraska Photographers' Association, and by so doing you become a member of the Photographers' Association of America, the highest Photographers' Association in the United States.

Write me to-day. I am,

Very respectfully yours,
Ralph R. Roszell,
Secretary N. P. A., Beatrice, Nebraska.

N. B. — To members of the N. P. A. Send in your dues at your earliest convenience. All annual dues became due the month of January, 1910. R. R. R.

* * *

To the Members of the P. A. of N. E.: —

$2000 in cash, to be divided amongst the members would require no press-agent; it would "leak out" and the 1910 Convention would see a record-breaking attendance, — yet you know:

If you could make better pictures, you might secure better prices.

If you could maintain quality at less expense, you might make more money.

If you knew exactly what, when, and how much to buy, you might save money. In fact:

If you could eliminate all uncertainty, you might claim success.

$2000 is no more than the average amount paid by this Association in promoting its annual Convention. Auxiliary expenses duplicate that amount several times over and every penny is invested, primarily, to arouse your interest.

If we had known whether you preferred Provincetown or Mt. Katahdin, we might have changed the location.

If we had known when you finish graduation work and begin the fishing trip we might have changed the date.

If at the time and place decided, it is possible to interest you, we should be able to do so because $2000 are now in our treasury, ready to finance any sane proposition; because our various halls furnish unsurpassed accommodations for displays and demonstrations; because New England has an abundance of men who can demonstrate every phase and feature of modern photography, and because such men have pledged themselves to support the 1910 Convention.

If you refuse or defer suggestions and wait to present criticisms, you are not helping 1910.

If we eliminate uncertainty by learning just what you wish us to do and—

If you eliminate uncertainty by noting what we promise we shall do, there will be no ifs about 1910 and success.

$2000 worth of opportunity is what we are promoting; it is not to be divided; every member is at liberty to take what he wants. What do you want?

W. F. Oliver,
Pres. P. A. of N. E.

PRACTICAL HINTS

Original short articles and discoveries are desired for this department, and $1 each will be paid for such as are accepted and published.

Some Enlarging Devices. — While making a number of enlargements recently at the Boston Camera Club I discovered that some of the devices which I was employing were unfamiliar to the members, and consequently take the opportunity to put them in print, although they are in no sense novel or original. If experienced photographers, like some of the Boston Camera Club members, do not know these devices, they may prove of interest to others among our readers. In making enlargements from some of my negatives, which were taken on films and developed in the developing machine, I found that the distance was somewhat clogged up by over-development, so that it was difficult to print it out, without making the foreground too dark. A little dodging was necessary. For this purpose, after the enlargement was focused, the size being 11 x 14, a piece of pasteboard 14 x 17, which had come in another package of bromide paper to protect it from being folded, was placed on the easel. A pencil mark was then drawn roughly along the outlines of the openings, between the trees, where the extra printing needed to be given. This was then taken out of the dark room and the openings cut out. Instead of following the lines, a series of diagonal lines were cut, giving a series of saw teeth with the points of the teeth projecting into the space. This made it possible to give extra exposure to the parts required, without showing any line of demarkation and a very slight motion of the cardboard in various directions during exposure keeps any trace of the dodging from being apparent upon the finished print.

Another negative which had been taken almost at sunset, and almost directly toward the sun, showed such enormous contrast that it was absolutely impossible to print out details in high lights or middle tones until the shadows had become absolutely black masses. To get a passable result from this negative, a glass positive was made, and considerably over-exposed to give a flat result. When the flat positive had been developed in dilute developer, fixed, washed, and dried, it was carefully brought into contact with the original film, and the negative and positive fastened together by means of lantern-slide binder. The result was a well-modulated negative from which it was possible to get an extremely satisfactory print or enlargement without difficulty. — F. R. FRAPRIE.

* * *

SEPIAS IN FIRST DEVELOPMENT. — In range and beauty of tone, in richness of detail and brilliancy, sepias made by the Kruxo first development process rival carbon tissues. Any tone desired, from a rich carbon brown, through sepia to red chalk tones can be obtained, and on the same paper used for black and white prints.

Kruxo is the only paper on every grade and surface of which true sepia tones can be produced in first development. The process is easy to work, and is rapidly taking the place of the redevelopment and other methods among particular photographers.

Every one knows that in redevelopment prints flatten out, losing detail and brilliancy, as will be seen by comparing a redeveloped sepia with a black and white print from the same negative. Kruxo sepias made in first development show every delicate gradation in the negative, with rich, transparent shadows and pure white high lights and margins.

Photographers who are particular about the permanency of their prints will be careful about using many of the so-called "Sepia Salts," so widely advertised, some of which contain mercury. Kruxo sepias are absolutely permanent — the developers used being the same as for negatives and for black and white prints. The sepia tones are obtained merely by varying the exposure and the strength of the developer.

Variations in the printing quality of negatives make some slight difference in the sepia tones produced. Thin, weak negatives do not make pleasing sepia tones; but any negative that yields a good black and white print will yield a satisfactory sepia. Negatives of average density give about the same color, so it is not necessary to test each negative when a number of prints are to be made. Make a test for the correct exposure, and having found that, first expose the full number and then develop all the prints together. Uniformity of tone depends entirely upon uniformity of exposure and development.

Do not take prints from the developer too soon; they develop slowly, and as they dry to a darker color than they show while wet, be careful not to develop prints until the tone is too dark.

Give prints four to eight times normal exposure, and the following formula will yield sepia tones in first development.

STOCK SOLUTION

Water	10 ounces
Hydroquinone	30 grains
Sodium sulphite	300 grains
Eikonogen	20 grains
Sodium carbonate	300 grains

For use, take 1 ounce of stock solution to 2 ounces of water, and to each ounce of this developer add 1 drop of a saturated solution of potassium bromide. Occasionally it will be found necessary to use 2 drops of bromide.

The quantity of water recommended above is for prints having five times normal exposure. When exposure is increased, add more water to the developer and increase the bromide in proportion. The addition of water to the developer softens prints.

Keep the temperature of the developer as even as possible — from 60° to 70° is best.

The color is controlled by the amount of bromide, the length of exposure, and the strength of the developer. A large amount of bromide and long exposure give more of a yellow tone: less bromide and shorter exposure give darker tones. If prints have an unpleasant reddish hue, a very small amount of iodide will kill it. A short exposure and strong developer with but little bromide give warm black and white tones.

When printing from a contrasty negative, add to the 30 ounces of developer 3 or 4 drops of ten per cent solution of iodide of potassium. The addition of iodide of potassium to a developer always necessitates more bromide.

Dead-matte papers will generally yield better tones if 2 drops of a ten per cent solution of iodide are added to the 30 ounces of developer. Double this quantity of iodide when developing semi-matte and glossy prints. There is one exception to this rule — in most cases it is not necessary to use iodide with prints on Acme-Buff, semi-matte.

It has already been said that good sepia tones cannot be obtained from weak negatives. To secure the best results from such negatives, give less than five times normal exposure, use less water than the formula calls for, keep the developer as cold as possible, and give prints time to develop fully.

Use the Kruxo Acid Hypo bath mixed the same as for black and white prints, except that 96 ounces of water instead of 64 ounces should be used in dissolving the hypo. Do not fix prints longer than ten minutes.

* * *

Daylight plus Flash-light, The Most Simple Way for Indoor Portraiture. — Flash-light photography is chiefly looked upon as a means of obtaining results at night; but it is a pity that its truly remarkable possibilities are not more freely used in conjunction with daylight. Were it more widely known that it is not only possible but extremely easy to obtain, in any ordinary room, portraits or figure studies with natural surroundings, and without having to give prolonged exposures, a new field of work would be opened out for the amateur photographer.

Think a moment what it means. You set your models in the soft light of some cosy corner; then wait your opportunity, secure in the certain knowledge that you have but to momentarily open the shutter on the lens and fire off a small charge of flash-powder to obtain a fully graded negative, with an exposure of something like 1-40th of a second.

Or, again, imagine your sitter in front of a window through which is seen the garden, sparkling with sunlight. Inside the room all is low shadow and diffused half-tones. Expose a plate — give it two or three seconds' exposure, say, at f. 8 — and what happens? An unpleasant black silhouette is obtained. But with the addition of flash-light a good result is possible in a fraction of a second.

The modern lamps and flash-powders, which fire instantaneously, giving off no more than a thin veil of mist, in place of the dense volumes of pungent smoke which one is used to obtain when using plain magnesium powder, open out endless opportunity for pleasant and profitable pictorial work, which may be followed on dull days just as successfully as when bright sunlight is dancing in at the windows.

The new Agfa lamp to which I refer above is small enough to slip into any pocket, even a vest pocket being large enough to hold it. It is simple in construction, and does its work without playing pranks by missing fire just at critical moments.

There is no sticking lucifer matches into springs; no bothering with tiny bits of fusing wire; no soaking pads with spirit — nothing beyond winding up a small clock-work arrangement and pressing lightly on a spring release, to fire off a small flash which ignites the powder. The lamp is held in one hand, in any position most suitable to the subject; then, at a touch with the finger, a brilliant flame of light flashes out, and a fully exposed picture has been secured. It is really wonderful, and none the less so because it is so simple. The lamp costs but $1.75.

This form of indoor portraiture is well within the capabilities of every user of the camera, and should be productive of much pictorial work in future that would not have been attempted in the past. — W. Thomas in *The Amateur Photographer*.

* * *

Exposure for the Beginner. — When you buy a camera, all you know about it is, "snap it," and maybe you succeed in getting a photograph and continue with one of the most interesting outdoor pleasures, or you do not succeed and you naturally drop it.

I have been experimenting along the lines of an exposure that can be better depended upon to record a photograph under trying conditions, and believe the following will be of more or less interest: —

A snap-shot cannot be depended upon. Beginners invariably feel that "time exposures" are too deep for them to understand. It is such a simple matter to press the button or push the lever and trust to luck. Others have luck and continue to snap-shot. Some do not know what a time exposure means.

At present there are no standard stops, no standard shutters, and, in fact, nothing is standard. I have been experimenting with a stop about ¼ inch in diameter. On box cameras the regular or largest stop is near enough to that size. On release shutters, — the Unicum, for example, — turn the lever to No. 16 or No. 22. In other words, use the nearest size stop in your lens to ¼ inch, and stick to that size for a few experimental exposures. Rest your camera on a solid support or tripod, and if your shutter is marked I. B. T., place the arrow on B. If a box camera is used, then pull up the slide next to the stop slide, and leave it set. Now press the lever or the bulb, and think or say "nought one nought." On the last nought, release pressure on bulb or lever, and your exposure has been made. By practicing this sentence, you will find it just takes one second to say it, and it is far better to trust to luck on the result you will obtain than if you had simply snap-shotted. From this basis you will begin to learn something more about exposure. By using a smaller stop on bright sunny days, or counting nought one, nought two, or even nought three, on cloudy days, you will begin to get better results.

By using this as a standard, you are photographing for the shadows, and are therefore running a much better chance of getting details, which make your pictures. — Claude Davis Millar.

SOME POINTS ON FIXING. — Most amateurs want their results to be permanent. The plate and paper makers have demonstrated that the negatives and prints will stand for many years when operations are properly conducted, but until we find a substitute for hypo, we must meet hypo conditions as we find them. The amateur who saves a few moments through impatience in various operations of photography, especially the fixing, will find some of his choice negatives ruined when he turns to them in later years. We have suffered our penalty for carelessness in this direction, and regret bitterly the hurry which caused it, for the negatives, unimportant at the time, had become extremely valuable, because irreplaceable.

The theory of fixation can be easily verified by a simple experiment. We need a solution of hypo made up the usual strength, 1 ounce to 4 of water, or twenty-five per cent. Add to it a solution of nitrate of silver, and a precipitate is formed, which, however, redissolves on stirring. This is the correct condition, and it proves very clearly that the redissolved compound is soluble in water, and can, therefore, be removed by washing.

Let us now dilute the hypo, which will represent a fixing bath made too weak or one which is old and therefore weak from over-usage. The precipitate does not redissolve, but turns dark corresponding to the stains on badly fixed plates. It shows also that a thoroughly fixed plate can be thoroughly washed and that a partly fixed plate can never be washed free from the compound formed in the hypo.

Now, as this compound contains silver, it will be acted on by gases in the atmosphere, among them sulphuretted hydrogen and sewer gases, which will produce stains on the negative. To prove this, pour the redeveloping solution used for sepia tones on paper over the plate, which has been fixed in weak hypo, and watch the plate discolor all over.

The technical committee of the Photographic Society of Philadelphia, in going over this ground some years ago, came to the conclusion that the insoluble double compound known as double hyposulphite of silver and sodium — the precipitate formed in the experiments quoted above — does not form even when the plate is removed at the exact moment of clearing. This would upset the idea which is prevalent that, unless an extra time is taken for fixing after clearing, no amount of washing could wash the film from silver. This would also make unnecessary the precaution of a double fixing bath, one following the other, as often recommended. In other words, if the first bath is good enough to work at all, it is good for both purposes.

The conclusion drawn is that excess of hypo is the only thing necessary to ensure proper fixing — which excess can be maintained by keeping the baths fresh and discarding doubtful ones at once. Why the photographer should economize on hypo has always been a question, since no cheaper chemical is used in photography. In the days when hypo was introduced into photography by Herschel, it was of course quoted by the ounce at enormous prices, but to-day the output can only be measured by tons.

Thorough washing is, of course, a necessity. Every amateur should own a cheap washing box,—a 4 x 5 box, for instance, can be bought for less than $1 and saves space and danger of accident to plates. The Ingento Plate Tank may be used as a washing box in addition to its regular uses, which makes it a very convenient accessory.

It is sometimes stated that fresh hypo is slow in action. This is very readily accounted for. If a twenty per cent solution of hypo is made, using water at 50° Fahrenheit, the temperature of the solution will drop ten degrees. Naturally, the fixation is slow, as chemical action is nearly always retarded by low temperature. Not only is the action slow, but we have now the reason for frilling, as the gelatine film from the relatively warmer developer will, of course, contract. If the substratum on which the plate is coated gives away under the great strain, the film comes off and the negative is spoiled.

If a negative is removed from hypo and stood on edge to drain, it may stain badly. Developing paper in a similar way stains if a bubble forms, preventing the hypo from getting at the silver. This stain may be accelerated by light, but as it forms also in the dark, it may be assumed that the double hyposulphite formed decomposes because of non-excess of hypo at that point. Unfortunately the only sure solvent for the stains is potassium cyanide, and the risk of using this chemical is not worth taking compared to slight extra labor of making over a print.

If the print or plate is to be redeveloped, the hypo which is left in the plate will unite with the ferricyanide in the bleacher, making Farmer's reducer. The result is that where the hypo remains, reduction takes place, and the redeveloper cannot color to full density, and a light spot is left. A similar result will occur if the plate is redeveloped for purposes of intensification. The redeveloper process for intensification is an excellent one, for it avoids the use of poisonous compounds, as in the mercury processes.

If moderate density be required, an old developer may be substituted for the smelly sulphide bath of the redeveloper, in which case a black deposit will come down, in place of the more non-actinic brown tone. It will be seen that no fixation should follow this process, for no silver is left in the high lights of the print or away plate, and a very short washing will suffice to carry the excess developer left in the gelatine of the paper.

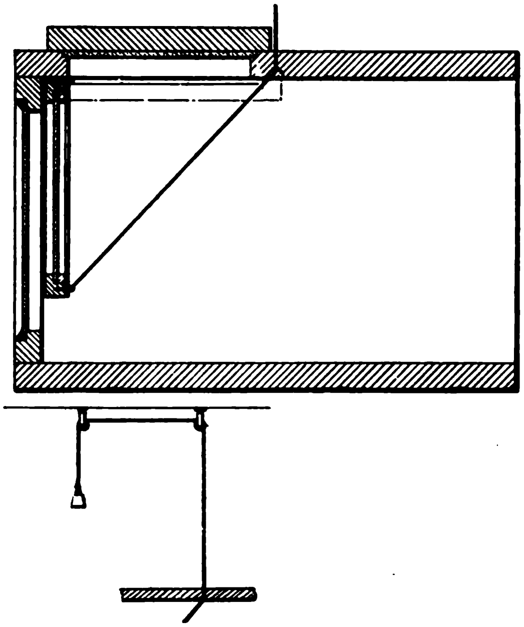
If the negatives are to be intensified with mercury and the hypo has not been washed out thoroughly, we get orange spots where the hypo remains, darker than the general tone of the negative, instead of lighter, as in the case of the redeveloper methods. — CANARY.

RECENT PATENTS.

Abstracted by F. C. Beach. Copies of any of these patents may be obtained at 10 *cents each from Munn & Co., Patent Solicitors,* 361 *Broadway, New York City.*

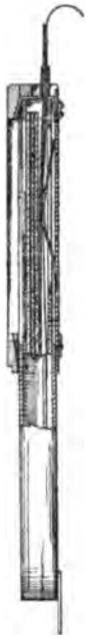
March 1, 1910.

950,661. PHOTOGRAPHIC PRINTING MACHINE. JOSEPH H. COOK, East St. Louis, Mo.



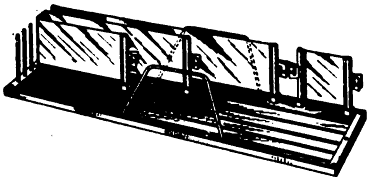
The arrangement consists of a rectangular box, with the right end open to the source of light. At the left end is a ruby glass, and at the top part of the left end is a rectangular opening for placing the negative to be printed from. Over the negative opening is a hinged back, like a photographic printing frame back. Swinging from the under side of the box cover adjoining the exposure aperture is a hinged frame, hanging downward in a vertical position, and carries non-actinic glass or paper. From the bottom end of the frame runs a cord over pulleys to a weight shown in the lower or adjoining figure, which normally keeps the vertical screen frame in a horizontal position against the under side of the upper aperture, and screens the same by a non-actinic light. To make an exposure, the upper horizontal lid is raised, the sensitized sheet is then laid on the negative and the lid put back again, which compresses the paper against the negative in the usual way. The operator then pushes upward the weight attached to the cord, which allows the non-actinic frame to fall to a vertical position, and causes the light coming into the box to illuminate the negative. Releasing the weight, the frame flies upward under the negative and stops or cuts off the exposure.

951,027. PACKING FOR PHOTOGRAPHIC PLATES OR FLAT FILMS. MARIAN ROMANOWICZ, Vienna, Austria-Hungary.



A series of plates or films of a certain number are each provided with an opaque backing, the paper or flexible packing extending around one end of the package, underneath the lower or bottom plate in regular order, then out through a slot in one end of the packet frame. The bottom plate is fixed and has no flexible pulling tab. Within the frame of the packet is a pocket-exposing slide in place of the usual plain slide. To make an exposure, the frame is pushed into the camera the same as a regular plate-holder, then the pocket-shaped slide is drawn, exposing the top plate to the lens image; after exposure, the tab of the top plate on the upper end is pulled out, which draws the plate off down into the pocket slide, as the latter is pushed inward, and the end tab is pulled upward at the same time; the exposed plate is drawn inward under the rear of the back or lower plate, while also the pocket slide protects the unexposed second upper plate from the light, until another exposure is made. The long paper tab attached to the lower exposed plate or film is then torn off and thrown away. A flat spring below pushes upward the packet as fast as the top plate is withdrawn, and the lower plate pushed in, to keep the sensitive surface of each plate in the proper exposure plane.

951,983. DEVELOPING APPARATUS. Addison P. Center, Brawley, Cal.



The principal feature of the improvements consists in a flat tray, intended to be set into a box tank filled with developer or fixing solution, as the case may be, the tray having at one end a series of fixed upright posts, over which are slid spring clamps, and at the other end adjustable slidable upright posts over a series of horizontal, longitudinal bottom, semi-flexible iron rods, which fit into sockets in the upturned flange at one end of the tray. The film to be developed is adjusted first to one of the slidable posts, then passed around a fixed post, and brought backward to a second adjustable post, its end fixed in proper position to hold the length of film in an upright position. The ends of film are secured to the posts by spring clamps, that are adjustable on the upright post, as previously mentioned. The bottom supporting rod is then sprung into the socket in the flanged end of the tray, and thus the film is held taut. Different lengths of film are readily adjusted.

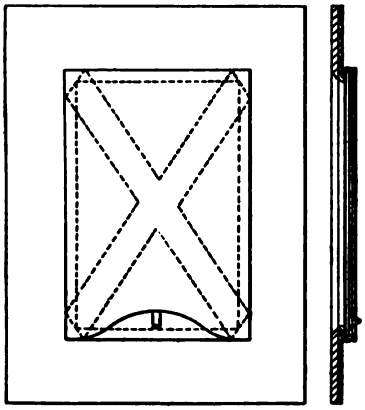
March 15, 1910.

952,199. CARRIER FOR STEREOPTICONS. David James, Chicago, Ill., Assignor to Burke & James.

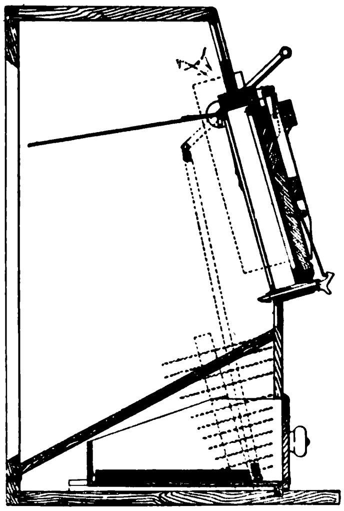
The plan of the carrier is to introduce a slide at one end in one groove upon a sliding bottom bar, which has a short pin projecting above its surface and a hook at the extreme other end. When the bar is pushed inward, the pin above its surface carries the slide with it, under two flat springs at the upper and lower portions of the viewing aperture, which press the inserted slide in contact with the first slide, the two slides overlapping each other momentarily. The hook on the end of the bar is forced, by the pressure of the springs on the inserted slide, latterly over the edge of the first slide, say first exhibited or viewing slide, and by quickly withdrawing the sliding bar outward, the exhibited or viewing slide is removed through a second guide groove in the carrier to the insertion end of the carrier and easily taken out. The inventor states that the change can be made so quickly that the persistence of vision produces the effect of one picture dissolving or merging into another when the slides overlap each other, and that no interruption between consecutive views occurs.

952,292. PICTURE AND LIKE MOUNT. Katherine Wright and Jessie Wright, Kent, England.

It is composed of triangular flaps, three of which are covered by a piece of paper secured to the latter by paste or gum forming a pocket for holding the picture, which can be retained in the pocket by sliding the fourth flap beneath the covering piece of material.



952,334. EXPOSURE ATTACHMENT FOR PHOTOGRAPHIC PRINTING MACHINES. Ernest N. Kerr, Rock Island, Ill.

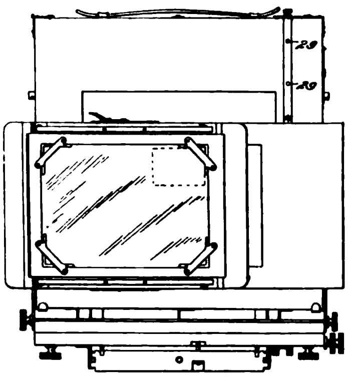


On the right-hand side of the illustration is a two-part hinged back shown, for holding the sensitized sheet against the negative. A spring hinge automatically opens the back, after printing, on the release of the latch at the bottom, for the removal of the print. On the left-hand side is the hinged flap shutter, shown open, operated outward by a spiral spring on its axis at the top. In a case attached to one side of the machine is a train of clock gearing (not shown in the illustration), having a revolving fan shaft near its lower end, the object being to control the time the gearing can run down for closing the shutter at the predetermined time of exposure. This time is varied to suit the negative, being printed upon by placing different sizes of fans on the fan shaft of the gearing. The small fan will allow the gearing to run faster, the large fan slower. In working the machine, the operator lowers the two-part door-holder on the right, which carries with it the two-part door, and as it closes, a leaf spring is forced against a dog, which causes the exposing shutter to be released and fly up; at the same time the catch holding the clock mechanism releases the latter and allows it to operate until the predetermined exposure time has elapsed according to the size of fan used, when the shutter closes with a snap.

March 22, 1910.

953,905. MULTIPLYING BACK FOR CAMERAS. Joseph Goddard, Rochester, N. Y.

The back attached to the camera is so arranged that a plurality of exposures upon one sensitized plate may be made by shifting a pair of frames having single exposure openings of such size that many small exposures may be made upon any large single plate. It is especially adapted for use with the ordinary view-camera. This is done by a set of masks, each having different sizes of exposure openings corresponding to a fraction of the number of exposures that are to be made upon the plate. Each mask is adapted to removably fit a rabbited opening in the camera back. Shields are used for the protection of those ends which are not being exposed, the shields being held in place by turn buttons. The dotted rectangular line in the upper right corner shows the size of one of the openings in the mask from a plate.



Camera Notes

ORGAN OF THE
CAMERA CLUB OF NEW YORK
121 West 68th Street

JUNE, 1910

Officers: *F. S. Hastings, President; F. Scott Gerrish, Vice-President; Frank M. Hale, Treasurer; Monroe W. Tingley, Secretary; James Stanley, Assistant Secretary.* Trustees: *Harry Coutant, W. H. Close, Willard P. Little, Frederick C. Beach, F. Benedict Herzog, J. Walter Righter, Maximilian Toch, Arnold Wood.*

The Camera Club's Annual Members' Print Exhibition, April 12 to May 31, 1910

The annual exhibition of members' pictures consists of 144 prints. They are excellently displayed, without crowding, some in frames, but the majority merely mounted and displayed under sheets of glass. Unfortunately, the prints are not numbered or catalogued, and many of them have no indication of their maker, which has made a review of the exhibition rather difficult. Several pictures have escaped mention because their makers could not be ascertained.

At the head of the stairs we find a strong group, including F. Benedict Herzog's well-known circular composition, "A Tale of Isolde," reproduced by us some years ago, and three prints by Rudolph Eickemeyer. The strongest of these is a portrait of Sadakichi Hartmann, a cruel and cynical characterization. Miss Murdock's "St. Cecilia," is an excellent portrait, somewhat marred by the introduction of a strong halo.

Frank S. Gerrish has here some pleasing costume studies of an eighteenth century beau, and on the south wall an excellent portrait of a young man with a cigarette case.

Paul Strand shows two soft portraits made with a Smith lens, that of the artist's mother being the better in pose and composition.

J. W. Allison shows a number of interesting foreign scenes, Hadrian's Villa, Villa d'Este, The Colosseum, and two interesting portraits, one of the strongest groups on the walls. The print of the colosseum is a very pictorial rendering of an unpictorial subject. The portrait of the artist's wife against a window is one of the gems of the show, an excellent handling of a difficult technical task.

Miss E. H. Tracy has a delightful landscape with sheep, somewhat marred by too strong clouds, and an interesting child portrait. Her portrait of a girl with a muff has too heavy tones in the shadows, overpowering an interesting face.

On the end wall we find Henry Galoupeau's strong portrait, elsewhere reproduced, a simple and effective piece of portraiture.

H. T. Rowley's "English Lane" is a beautiful landscape, a commonplace scene well handled and excellently conveying the effect of uphill perspective.

On the south wall a prominent group is formed by J. W. Allison's "Colosseum," F. R. Fraprie's soft landscape, "The Birks of Edzell," and three striking landscapes by Eickemeyer. The most interesting in composition is "The Grassy Sprain," a brook with a beautiful vista through an arched bridge. "Edge of a Pine Grove" is a large, imposing, and effective tree study.

Charles I. Berg shows four beautiful little nudes in miniature frames and two decorative studies of high merit. W. A. French has three bromides of foreign scenes, picturesque spots, but not as effectively presented as might be the case with a more responsive medium.

G. C. Bell's gum of a battleship saluting is an effective marine piece. A curious and effective print by Ed. Heim shows a dancer pirouetting with a chair in each hand and a third balanced on her head, unpromising material artistically used. His picture of a gray squirrel is also very good. Edwina Bourke's head study of a young girl shows tender flesh tones overpowered by dense blacks in the hat and chalky white in the gown. Wm. D. Murphy shows several interesting little foreign scenes, and other foreign pictures of high merit are by W. H. Close. His "Street Scene in Luchon" is one of the finest prints on the wall, full of atmosphere, life, and sunshine. Chas. M. Brooks' "Salome" is a fine print of a beautiful model, gracefully posed, in technique one of the finest pieces hung. J. E. Boultenhouse has a number of small nudes, interesting studies in pose, but rather too dark in printing. F. S. Hastings, president of the club, has a number of prints, the most interesting being a brush-developed platinum in two tones and a portrait of a lady with scarf.

Ernest Wolf's "Violinist" is a pleasing full-length portrait. Wm. D. Murphy and Chas. R. Flint each have an excellent study of a dog. Dexter H. Walker's circular portrait is not improved by this trimming, but shows an interesting subject pleasingly posed. Hugo S. Mack shows two landscapes, that of a sunset at Rockaway having graceful lines and poetic feeling. M. W. Tingley's nude study hung over the staircase shows an interesting and graceful pose. R. B. Fitzgerald has some interesting automobile scenes, and Maximilian Toch a series of photomicrographs.

The exhibition is, on the whole a very strong and interesting collection, and does great credit to the club. It seems to the writer a distinct advance over previous annual exhibitions, and presages further progress. The resignation some time since of a number of members of the Photo-Secession has not been an unmixed evil as far as the club's pictorial progress is concerned. Members who felt overshadowed by big reputations, and hence did not care to exhibit, now feel that their work will receive its fair share of attention, and submit interesting prints. Thus we may safely assert that the club is now stronger and more helpful to all its members than ever.

BOARD MEETINGS. — A special meeting of the Board of Trustees was held on Monday evening, April 11. The special subject discussed related to the extension of time for the payment of back dues and house expenses of a few members who had neglected to meet their obligations as required by the by-laws.

On Tuesday evening, May 3, the regular monthly meeting was held, nine members being present. Several communications were read by the secretary, one of which included an invitation from the Orange Camera Club to attend their annual Decoration Day outing. Members desiring to participate should address the secretary or assistant secretary for particulars. The treasurer reported a good balance on hand and the receipt of back dues from several members.

A resolution was passed providing for the transaction of routine business during the summer months by a reduced majority of the board, subject to further ratification by the board in the fall. Dr. P. William Nathan of New York was elected an active member of the club. Considerable discussion occurred over the rule providing for the cessation of work by professional members of the club in the club rooms on Saturdays, holidays, and Sundays.

It was voted that the matter be submitted to all club members for an expression of opinion, by mail vote, and it is probable the rule will be modified. The treasurer called attention to the great excess of water that was used during the past few months in the dark room and printing room. The house committee was requested to investigate the matter, and to adopt some way to curtail the waste. Members using the club facilities are especially cautioned to reduce the waste by using a small stream of water in washing, instead of having the faucet wide open, and to shut the water off when leaving the rooms. The waste has incurred an expense of $74 to the club over the estimated allowance it is entitled to.

THE ANNUAL SMOKER. — This entertainment took place on Wednesday evening, April 20, and was a very successful affair. Among those present was Dexter H. Walker, the second president of the old Society of Amateur Photographers. Messrs. Alling and Stark of the special committee provided a good entertainment. Excellent instrumental music was provided, a young man whose name we do not recall playing difficult pieces by Beethoven, on a violin, with remarkable expression and ease of manipulation, as if it was a second nature.

Our assistant secretary, Mr. James Stanley, distinguished himself by his splendid, mellow basso voice in singing several pieces, receiving encore after encore.

There were also one or two vaudeville singers, and many amusing lantern slides thrown on the screen varied the entertainment. Altogether, it was a most enjoyable evening, and promoted good feeling all around.

THE SPRING MEETING of the club was held on Thursday evening, May 5, when the matter of submitting to the members the question of professional members using the rooms on holidays and Sundays, by mail vote, was approved, as the action of the board in this respect was ratified.

FIREWORKS
J. H. CRABTREE, F. R. P. S.

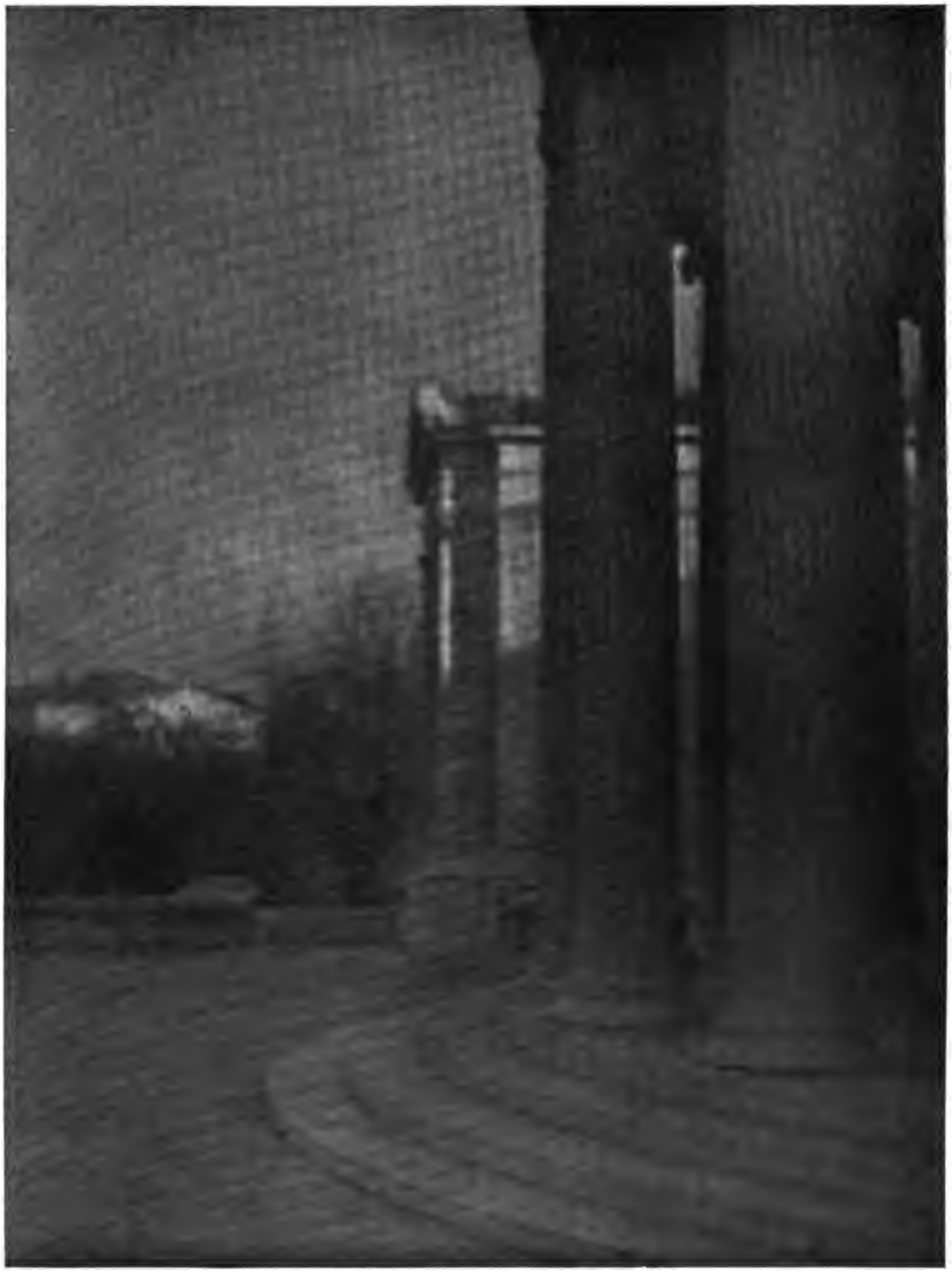
WEST VIEW OF THE ALBRIGHT ART GALLERY WILBUR H. PORTERFIELD
Photo-Pictorialists of Buffalo

THE WORK OF WILBUR H. PORTERFIELD

ONE is, I think, able to discuss the photographic work of Mr. W. H. Porterfield without entering into a discussion of the relation between photography and the fine arts. For Mr. Porterfield belongs to that class of workers, who, sure of their aims, and persistent in the pursuit of them, are quite content to let their work speak for itself. And to all whose conception of beauty is not bounded by conventional ideas of the limits of art, his work does speak.

Recognition, indeed, Mr. Porterfield's work has had in plenty, and of a type not fully summed up by more than seventy awards (including one from the Dresden International Photographic Exhibition of 1909, and the grand prize in the *Youth's Companion* contest for 1908) and the encomiums by European critics on his work shown in foreign exhibitions. A prophet is not always "without honor in his own country," and the late Dr. Charles Kurtz, whose artistic taste was as broad as it was discriminating, showed great interest in the work of Mr. Porterfield and his group of co-workers, the Photo-Pictorialists of Buffalo, of which interest the exhibition of their photographs in the Albright Art Gallery in 1907 was one of the results.

A lover of outdoor nature for itself and for relaxation from a sedentary occupation, Mr. Porterfield fell a victim to the camera. I do not believe he ever produced — well, the sort of thing that every amateur produces; and though he says he did, I find it hard to credit. In any case, he cannot have continued to do so for long. Sensitively responsive to the beautiful in nature, he began to find that the camera could be used, not merely to reproduce with scientific accuracy and æsthetic



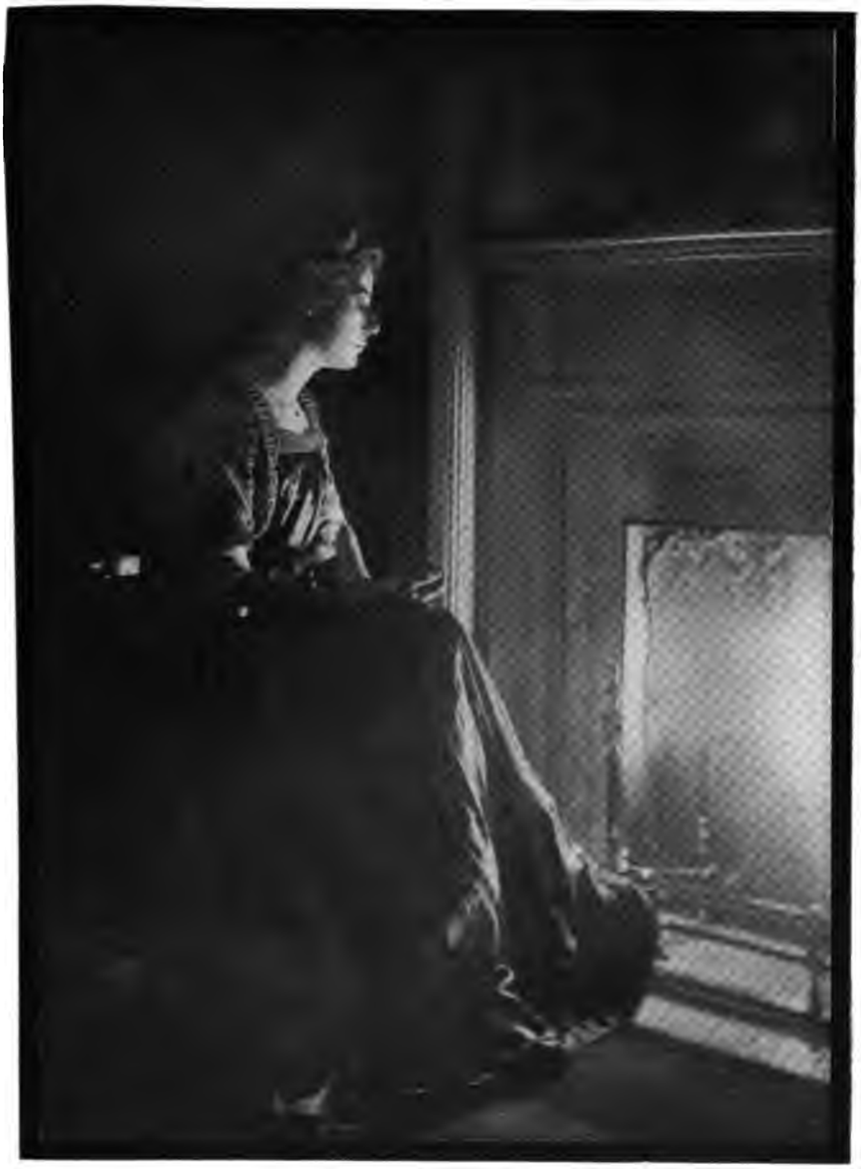
NORTHWEST VIEW OF THE ALBRIGHT ART GALLERY
WILBUR H. PORTERFIELD
Photo-Pictorialists of Buffalo

falsity, but also to depict with more or less completeness the character of nature as he saw it. Always keenly interested in art, he possessed, as a pendant to his faculty of æsthetic observation, no small degree of natural aptitude for expression — an instinctive sense of composition, balance, and tone. So — and there are not a few photographers of whom the above can be said, and who have traveled to a greater or less distance along the same road — he gradually came to use his camera as a tool for the purpose of expressing himself, advancing steadily in mastery of his medium, in individuality of insight, and in beauty of presentation. Associated with a handful of photographers whose aims were identical with his own, who by mutual advice and criticism did much to assist each other's advance, he began to achieve that reputation amongst serious pictorial photographers all over the world which he possesses to-day.

It is not my purpose, nor is this the place, to go into Mr. Porterfield's methods of work. The reader would not be interested in them, nor would they, indeed, be of very much interest even to photographers, for his technique, though complete, is of the simplest. Persistence is, perhaps, half of his technique. His aim being, as I have already made clear, to reproduce some phase of nature either as he saw it, or more often, as he imagined it, he is tireless in his attempts to get just what he wants in his final prints. A man who will go week after week, even year after year, to expose plates on the same subject until he gets just what he wants, who will make print after print until he has one which is not "good enough," but just what he wants, certainly has the proverbial (if erroneous) attribute of genius, the capacity for taking pains.

Mr. Porterfield's best work, as well as much the larger portion of his work, has been done in landscape. Indeed, the Photo-Pictorialists, as a group, are widely credited among pictorial photographers with the introduction into landscape photography of a certain type of *motif* which has come to be recognized as characteristic of what has been termed the "Buffalo School." No doubt the constant association of the members of the group has been, in some degree, responsible for the broad family likeness of their work; but there is equally no doubt that it is chiefly due to the lack of diversity of character in the landscape within that radius from Buffalo to which the photographer, who is tied to the city, must limit himself. Horizontal ground broken by an occasional creek, an orchard, a clump of elms, a grove of maple or poplar, limit for the most part the variety of subject which can be handled; a limitation which, perhaps, brings its own compensation in leading naturally to a more intimate and familiar acquaintance with the character of the landscape than can easily be acquired under more apparently favorable conditions. The resemblance alluded to above, which has been frequently noted and commented on, is, however, that of treatment, rather than that of vision, and of treatment only in a superficial sense, and it is here alluded to merely because one of the characteristics of Mr. Porterfield's work is that it is intensely characteristic of the "school."

There are few aspects of the landscape of this corner of the State that Mr. Porterfield's camera has not explored, and few phases of landscape mood that he has not essayed. When one thinks of the range of varied treatment which is covered by such prints as "Over the Hill Tops," "Crescendo," with its concentrated treatment of a boisterous gale; "Evening in Italy," soft with the mellow mystery of twilight; and the delicate "Morning Along the Shore," — prints which are about as dissimilar in composition as they are in atmospheric treatment, — one is rather puzzled to uncover the individual characteristic which, to one familiar with his style, stamps them at a glance as unmistakably Porterfield. Mannerisms, particularly of composition, he sometimes exhibits—who does not? — but there is no connecting mannerism here. One finally decides that the identifying feature is a large directness, a bigness of effect from which all superfluous accessories, to say nothing of inharmonious material, have been removed. This quality of largeness and strength speaks from every print of his. It is assisted, unquestionably, by his skill in spacing, upon which his treatment of trees in groups (which form the subject of most of his work) largely depends. The



PICTURES IN THE FLAMES
EDWARD W. BOYD, BOSTON
First Prize, Genre Class, Boston Camera Club

boldness and originality of his grouping — good examples of which are found in his "Jersey Lowlands," and "Skyscrapers," — are very happily supplemented by and combined with an instinctive beauty of line and softness of outline and tone. For pure beauty of line his "Japanesque" (now hanging in the Albright Art Gallery) may well serve as an example, but of its combination with other qualities scarcely a picture of his fails to offer evidence. Curiously enough, his least successful pictures are so because they suffer in a way from the defects of his qualities; he draws too "big," as it were; the beauty of line takes on a slightly grotesque clothing (how narrow the margin sometimes is!), and the bigness becomes that of clumsiness rather than of strength. This occasional tendency to exaggeration appears to have been a passing phase which he has outgrown. When we begin to look for characteristic examples of his modification of the boldness of his composition by softness of tone and outline, we run down a group of prints which for poetry of effect and compelling appeal could, I think, certainly not be equaled in the work of any other photographer. Starting back with the delicate "Morning along the Shore," we look over a series of prints in quiet, harmonious tones, mostly of low register, in which we are made to feel the cool break of day through the mist, the quietness of a summer evening, the mystery of night, — a series culminating finely, in the *stimmungsvoll* "Evening in Italy," and the magnificent and dignified "Vale of Cassadaga." In spite of the fine sweep and simple stateliness of "Trees of Lombardy," we cannot help feeling that Wilbur Porterfield's receptive faculties are more closely attuned to the sombre mysteries of evening than to the brilliance and glitter of daylight; he works most congenially in the lower register of tones, in which no problem of *nuance*, of *timbre*, is too much for him. Striking as are some of his essays in sunshine, strong, brilliant, and captivating, none of them possesses quite that rare and satisfying completeness of effect which belongs to the prints just referred to, in which — note — are to be found, as a foundation, the qualities of strength and beauty of line which our analysis brought out as his chief characteristics. One is not immediately conscious of these, in the prints in question; one is merely conscious of the effect; and it is only on analysis that we discover to what extent the effect is dependent upon them.

The two prints of the Albright Art Gallery, which are reproduced in this number of "Academy Notes," represent rather a new departure on Mr. Porterfield's part as regards subject. It is very interesting to observe, therefore, that the style and characteristics which he has acquired in the treatment of landscape are the basis of these prints also. When we come to the mysterious and solemn moonlight rendering, with its beautiful modulated sky, it becomes very evident that it might have been taken as an example of his characteristics of treatment outlined above, just as well as any of the landscapes then mentioned. The other print, which shows practically the same aspect under different lighting conditions, has that bigness of spacing and grouping, that certainty of line, that directness of light and shade treatment which one has, in his work, such frequent cause to note.

One word in conclusion; there may appear some inconsistency between the stress I laid on the landscape quality of Western New York, and the rather exotic titles of some of Mr. Porterfield's pictures. When it is remembered that Mr. Porterfield is certainly not aiming at topographical exactitude in his work, and that the original negatives of "Trees of Lombardy" and "Evening in Italy" involved no longer journey than to Fort Erie Grove, the apparent inconsistency will vanish. — F. A. L. in *Academy Notes.*

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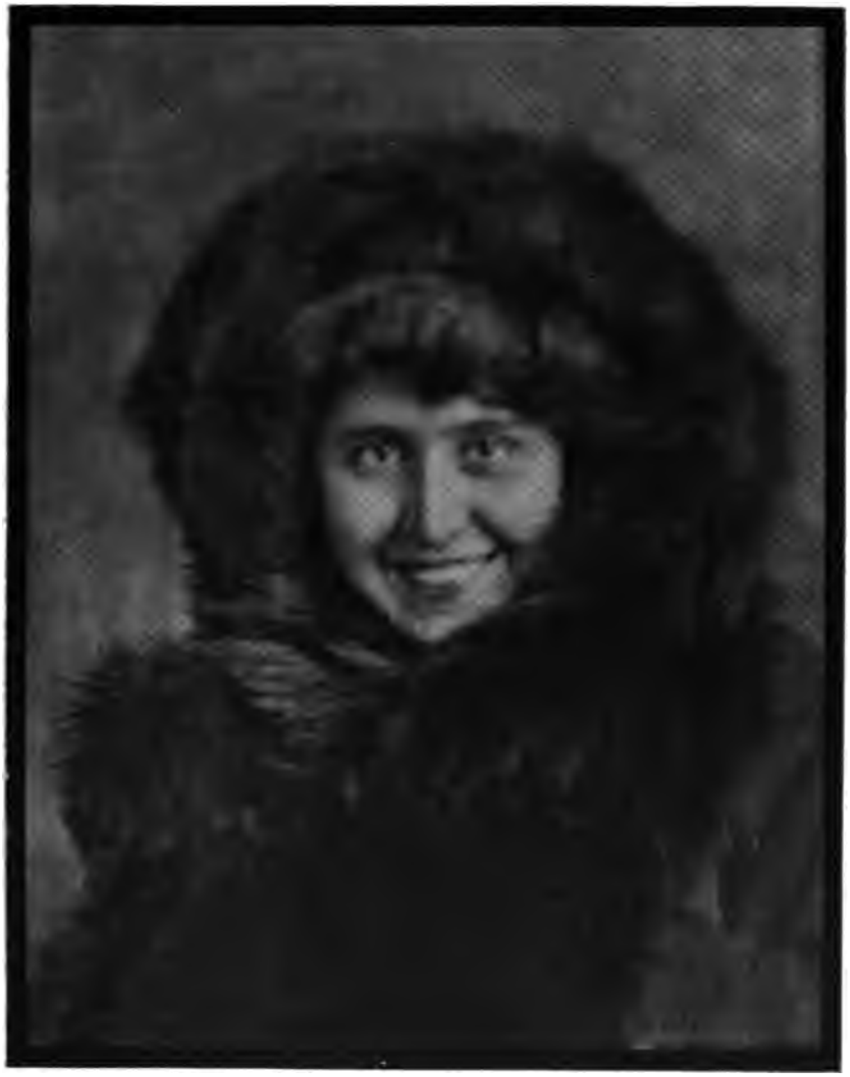

WREATHED SMILES
JAMES DANA, BROOKLINE
Annual Exhibition, Boston Camera Club

PHOTOGRAPHING FIREWORKS

Topical Hints on Pyro and Pyro-technics

J. H. CRABTREE, F. R. P. S.

FRESH from the fray or, I should say, from the crowd, several points occurred to me which might be of service. It was a big crowd, too; and though a special permission was kindly offered for a "nice stand," I preferred to rough it—now here, now there, just as opportunity offered and as the fireworks flew.

If I had taken up a "reserved seat," these notes, intended as they are for the host of photographers who also like to rough it, would have been denuded of some of their grit and interest.

Every camerist who is an outdoor man desires to try his hand at fireworks when the festive Fourth of July comes round. Of course, he wastes a few plates, but that is excusable if he succeeds in obtaining one or two really impressive results. I want here to show him how he may save those wasted plates, and know beforehand that passable results will be certain.

The Camera and Tripod

In the crowd we go, then, with a half-plate stand camera, a dozen backed plates of an extra rapid type, a fairly good lens which can be used at full aperture, and a box of wax matches. We cannot, of course, expect to be in the front rank with a camera. The people here are filed ten deep, and have no compassion on tripods. The pressure of humanity alone would pulverize the best of apparatus, and we must keep cool, even "under fire." But just behind — a few yards away, in fact — are sundry open spaces, which look as if they were specially reserved for good men with cameras. They are just wide enough, and high as the clouds. These are the spots — and there are dozens of them — where the tripod may be planted without the slightest disturbance from man, woman, or child. The crowd will surge to and fro somewhat, but will tend toward the first rank. People will come near, peep through the gloaming, make a passing remark that "he's taking the moon," or offer some similar piece of information, then they will pass on without further damage.

Here, then, we fix for the nonce our tallest tripod, a strong wooden edifice which will not shiver in the evening breeze, for it is 9 P.M., and we are not bent on instantaneous work. Now tilt up the camera front, so as to have the back row of heads near the top of the focusing screen. Obviously, these need not alarm us in any way. Whether they look at us or at the fireworks does not affect the "fire" in the least; and, as a rule, when the rockets begin to ascend, the crowd in front assumes a rigid solidarity which no camera can dissolve.

Focusing

Focus on any fixed lights which may be in the region of the display, and work at full aperture, or not less than f. 8. It is not necessary that every part of the career of a shooting rocket should be in absolutely sharp definition; in fact, the impressive effect is accentuated very much by the beautiful softness in the more distant lines of fire. Allow one or two lights to fire into the heavens before exposing a plate — look at the focusing screen, and this effect will be evident. We are all aware that a line is "length without breadth," but in firework lines we want visible breadth and a fair amount of diffusion.

Steer the lens towards the main sphere of the display. "How shall I do that?" you say — a very proper inquiry. We cannot be poking our heads under the focusing cloth in the crowd. I do not use any such fabric. It might be risky at times. And yet we must have the steering correct, as the "let off" is sometimes at one end of the frames and then at the other; and if we steer at the center, we miss both, each "let off" being outside the lens field. Here is the crux in a nutshell.

FIREWORKS
J. H. CRABTREE, F. R. P. S.

Before leaving home take from the kitchen tool-box two small eyeletted picture screws, preferably of brass, and fix them in the centers of the camera back and the lens mount respectively. You can see them in the dark; the brass will reflect the merest trace of light, and by setting the screw-heads in line with the fire we can, in a moment, make sure of the right direction.

EXPOSING

Draw the slide, and expose right away. Keep the lens open until a fair number of fire lines have shot into the air. Remember the "picture" is to be in the big blank space above the people's heads, and the exposure is not a matter of one, two, or three seconds. The point to consider is this, How much do you want in the picture? Do not overload it by any means; but it would be absurd to stop the exposure at "two seconds" when only a couple of rockets have gone up. There would be two lines only on the negative, which would be useless. Watch the display, and keep the lens open until the sky has been well marked with fire. It may take five or ten minutes. The time is immaterial.

Now somebody walks right in front of the lens. Do not perturb yourself. Let the people pass and repass. Their effect will be nil. During one of my exposures a lady — quite innocently, I am sure — placed an uncommonly handsome picture-hat right in front of the camera, and showed no sign of moving it either to the right or the left. This was embarrassing. Just then a fine blare of powder burst on the scene, and I reminded the lady that the camera was photographing. That was quite sufficient. My photograph was assured.

It is just as well to have a friend near by. You will then stand on one side of the tripod, and he on the other. This prevents the crowd kicking the tripod feet in passing. During the actual exposure it is advisable to keep the camera as still as possible to secure the beautiful curvature of the fire lines. Changing the plate should be performed smartly; firework displays seldom last longer than half an hour, and this time is rather a modicum for a dozen plates.

Have all the dark slides numbered plainly on the lids. The usual speck of ivorine with a small gray figure is not distinct enough. I paint on my lids, with white enamel, figures quite two inches long. The relief is obvious to the fingers even in the dark. But by striking a wax vesta the number is seen instantly.

The color of the fireworks should not be forgotten. I invariably use orthochromatic plates.

A word about developing may be useful here. Unless we are careful, we shall get on the negative a zone of dense black deposit, corresponding to the halo of the fire, which will rather spoil realism in the print. To guard against this, do not use quinol developer. My plan is to use a ten per cent solution of pyro, and a twenty per cent solution of soda. I take 2 drams of the pyro solution, 1 ounce of the soda, and make up to 4 ounces with water for each half plate. To this I add 1 dram of rodinal. No bromide whatever is used.

By this means all possible detail is evolved, and the whole negative is thoroughly printable on bromide, gaslight, P. O. P., or any other medium. — *The Amateur Photographer and Photographic News.*

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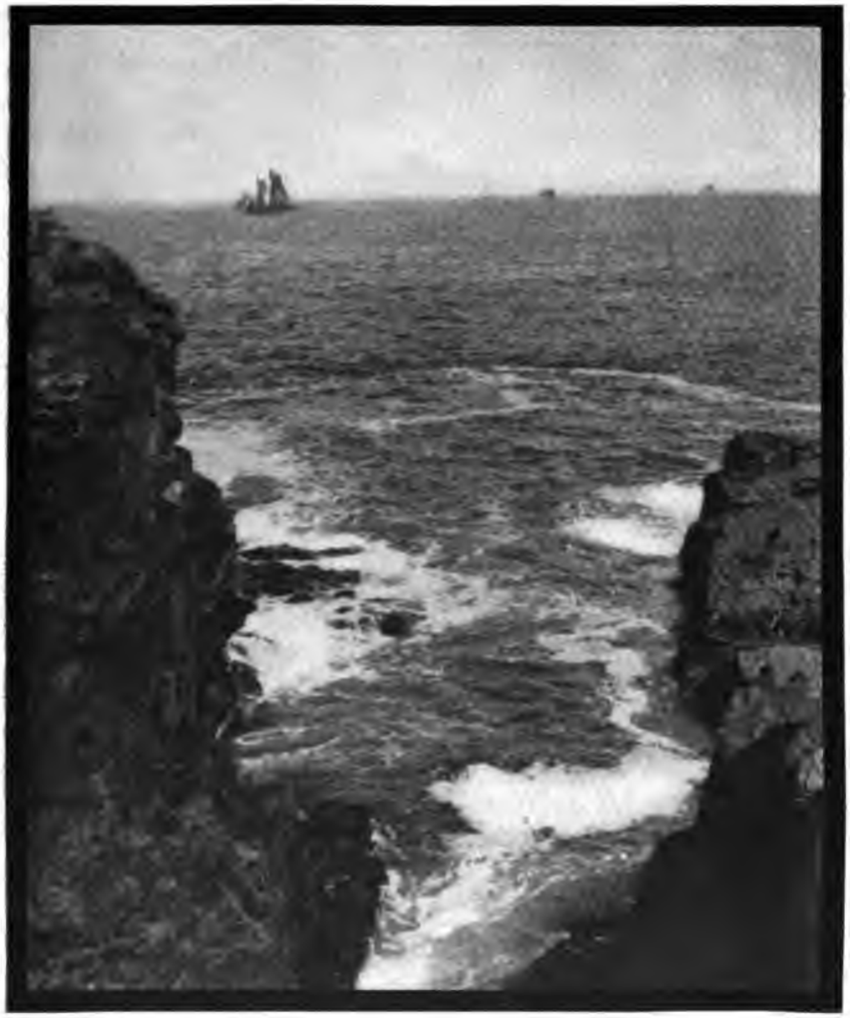


OFF NAHANT
E. H. WASHBURN, BOSTON
First Prize, Marine Class, Boston Camera Club

THE NO. O GRAPHIC CAMERA

C. F. STILES

THE last ten years have shown a wonderful gain in the popularity of the camera. The film camera has universally taken the place of the more bulky plate models, because of the indisputable convenience of daylight loading and the tank developer. Magazine plate cameras had their brief season of popularity, and many plate cameras were sold in their day, but the daylight loading cartridge and the elimination of the dark room were the potent factors in the rise of the kodak.

It must not be assumed that the absolute value of the plate-camera business to-day is beyond notice, for this is not a fact. Nowadays when a plate camera is sold, it is often of the most substantial kind, with long bellows, reversible back, focal-plane shutter, and a large front for a high-grade anastigmat. It is on these models that the bulk of the plate camera business falls, the purchasers being schools and laboratories, scientific men, and those who require the precision and adjustments of these highly specialized types.

The camera trade has shown an interesting development in sizes of the instruments. Plate cameras have been offered in all standard sizes. The original Pocket Kodak was but 1½ x 2 inches and was laughed at by the dealer, but sold in spite of his prophecies. The 3½ x 3½ Bull's Eye and various Pocket Kodaks followed up to 4¼ x 6½ sizes, the most popular size naturally being the 3¼ x 5½ 3A Folding Pocket Kodak, on account of its graceful proportions and identity of size with the post-card.

This evolution in size has been going on slowly, and when the 3A size was reached, this seemed to be the limit, as the later size Kodaks, 4 x 5 and 4¼ x 6½, have not attained the popularity of the smaller and earlier sizes.

Last year the Graflex line was extended by a small compact 2½ x 4¼ model, which has been very popular, and a general tendency towards smaller and better quality pictures is in evidence.

As photography became more popular, there arose a demand for cameras which could be used at any time. A tourist arrives at a stopping point on a cloudy day, and unless he carries a tripod, he must forego picture taking. The discriminating public took up the anastigmat lens, which, on account of its speed and precision, allowed snap-shots on a gray day. A new difficulty immediately arose, based on the very excellence of the optical equipment. A fine lens needs more care in focusing and has less depth (because the depth, so-called, of the ordinary lenses is partly lack of definition). The result was that the exposure latitude was shortened. Perhaps these remarks will suggest why anastigmat fittings on hand cameras are many times unsatisfactory. This is particularly so with the rich man, who assumes that the camera will work itself simply because it is of high money value.

As a matter of fact the anastigmat Kodak is capable of everything that is claimed of it. The improvements in between-lens shutters, shutters such as the "Compound," whose exposures are very accurate, gives an increased scope to the model, and cloudy weather does not offer any serious difficulties if the exposures are made with a little judgment.

The tendency at present is towards reflecting patterns, such as the Graflex. A wonderful increase in exposure results from the use of the focal-plane shutter with its high light-efficiency. No one has yet invented a folding mirror or other collapsible features *à la* Kodak, and there are some who have objection to bulk and weight of the reflecting camera. On the other hand, the Graflex user knows that in return he obtains insurance against failure, as every shot tells and there are no more errors in guessing the focus.

A new demand has arisen lately for a compact tourist camera which shall make pictures of high quality with microscopic definition, suitable for enlargement. Such a camera must be very

THE DUCK POND C. F. STILES, BOSTON

From No. O Graphic Negative, Enlarged Four Diameters

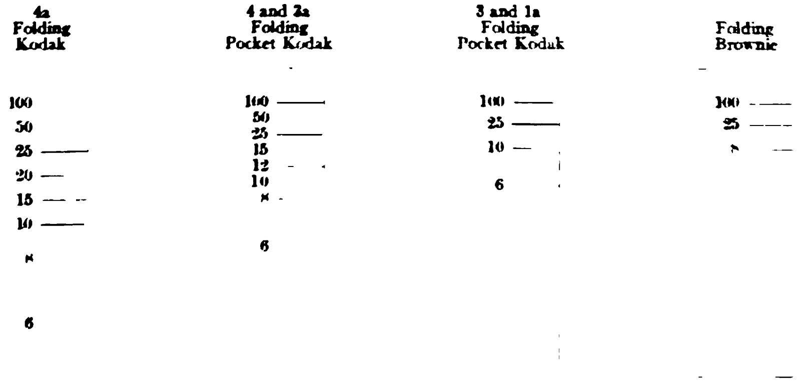
compact and easily workable, and yet have such range of adjustment that cloudy day exposures or rapidly moving objects shall not be outside its limits.

The tourist often argues that if enlargements are to be made, they might as well be thrown up from small negatives, in this way giving a minimum weight and bulk in the field. Why this has not been done in the past is because the quality of negatives generally produced with the smaller cameras would not allow of such large ratios of enlargement. The tourist also has another problem when a large number of pictures of even 3A size are to be shown in an album, as two or three hundred exposures this size will fill a very respectable sized book.

A camera satisfying these conditions has been put out by the Folmer & Schwing Division, under the name of the No. O Graphic, and is now ready for general distribution. It is built on scientific lines, and combines compactness and daylight loading features of the Kodak with the Graflex features, making it alike suitable for a yachting trip, a mountain climb, or an automobile run. It will take the baby day by day, giving a series of records like a moving picture film, or stop the rapid motion of the ball in a football game. It can be exposed for unlimited numbers of shots. The cartridges of twelve exposures each are so light that one hundred and fifty exposures may be stowed away in the vest pockets without being a burden.

The camera critic does not demand unlimited enlargement, but there does not seem to be any limit in this direction, other than that put on us by granularity of film when enlarged on very smooth paper. Rough sepia enlargements do not show this effect at all. In fact, many enlargements from No. O negatives made up to 10 x 12 size have been far better than 10 x 12 made from 4 x 5 originals, — a very striking demonstration to the prospective customer. In its very short life the No. O Graphic has already made a hit, and a vast field of possibilities in commercial application has been opened up.

The reasons for the success of the No. O model are not hard to find. In general the camera maker builds a camera for the average man, rather than for the expert. The smaller cameras have always been generally successful, and this may be explained without technicalities by a glance at the focusing scales shown below: —



The reader will notice at once that the distance from 10-foot focus to distance is much greater on the larger cameras with longer focus lenses, and also that there is more movement necessary to shift focus the 15 feet between 10 and 25 feet than between 50 and 100 feet marks. As the average amateur is a bad guesser on distance, most of his out-of-focus shots come on near objects.

Now, if the amateur could be freed from focusing troubles, his errors would be confined to exposure only. Again referring to the scales, we see that as the focus decreases, the nearer do the various planes approach, so that where we are down to four inches practically everything is in focus at once. Such a camera is the Bull's Eye, 3½ x 3½, or the popular Brownies.

The optician's standard of definition is what he calls the "circle of confusion." This is the diameter of the disk in the image which represents a point in the object. In theory we expect all points in the object to be represented by points on the negative, but practically we are satisfied if the point is represented by a disk 1–100th inch in diameter, which circle is known as the "disk of confusion." The negative will then have satisfactory sharpness to the eye and may be enlarged moderately. To make greater enlargements, we decrease our circle of confusion, making it about 1–400th inch, which is the same as increasing our quality of definition. With the circle of confusion as our standard of definition, the optician can easily calculate the hyperfocal distance, beyond which all objects are in good definition. This can also be verified by experiment, the slight discrepancies representing the difference between theoretical lens conditions and those found in practice.

Strictly speaking, the calculations for hyperfocal distance are made with the plate in the principal focus or infinity focus of the lens. Now, in many cameras, the No. O included, the scale is adjusted for a distance a little farther away from the lens than the infinity focus, as we do not care for the best definition on the extreme distance. In this way the depth of field is increased, and nearer objects can be taken sharp at full aperture, — a still further advantage.

The term "depth of field" is allied with hyperfocal distance. It may be described as the distance through which an object in the field may be moved without going out of focus; or, to put it another way, the distance from the nearest to the farthest object in focus. Thus, if an object was sharp at 18 feet when focused for distance or infinity, the depth of field would be infinity to 18 feet, and the distance 18 feet would be the "hyperfocal distance."

THE FISHERMAN C. F. STILES, BOSTON

From No. O Graphic Negative, Enlarged Four Diameters

As the hyperfocal distance of any lens is decreased by stopping down and increased by larger openings, it follows that fixed or universal focus is only a relative term. As stated before, we do not focus on infinity as we are not interested in objects at great distances with images too small to be appreciated. We compromise, which helps the foreground without spoiling the distance. As with a three-inch lens there is only 0.077 inch separation between focus planes for distance and 10 feet, so we have a practical universal focus if we set between these planes.

TABLE OF HYPERFOCAL DISTANCES

Stops Used.	F values	4	5.6	6.3	8	11.3	12.5	16	22.6	25	32
	US Nos.	1	2		4	8		16	32		64
Focus in Inches	DISTANCES BELOW ARE FEET BEYOND WHICH OBJECTS ARE SHARP.										
3		19	14	12	9.7	6.9	6.3	4.9	3.6	3.3	2.6
4		34	24	21.5	17	12	11	8.7	6.3	5.6	4.5
5		53	36	34	26	18	17	13	9.3	8.8	6.9
6		75	54	43	38	27	24	18	14	12	10
7		103	74	65	52	37	33	26	19	17	13
8		134	96	85	67	48	43	34	25	22	17
10		209	149	134	105	75	68	53	38	34	27

The lesson taught by this table is that a short-focus lens has more depth of field than a longer focus one. A short-focus lens is therefore faster than a long-focus lens under the same conditions, for we can use it wide open practically all the time, whereas a long-focus lens, even with precise focusing devices, does not have many planes in focus at once (unless smaller stops are used, with consequent lengthening of exposure time).

The above facts, when digested, will explain the peculiar advantages of the No. O Graphic. A three-inch Zeiss Kodak Anastigmat Lens is used, the speed being f. 6.3. The camera has therefore a depth of field from 12 feet upwards, and can be focused for nearer objects by simply stopping down a little, which throws the hyperfocal point nearer the camera.

The camera weighs 25 ounces, and is in size 5 x 3½ x 3¼ inches. It takes the No. O Folding Pocket Kodak film, which retails at 25 cents for twelve exposures or 15 cents for six, and is furnished with the Graflex focal plane shutter similar to that used in the larger Graflex models.

The Zeiss Kodak Anastigmat will cover the field of the picture, 1⅝ x 2½ with critical definition even in the extreme corners. It can be worked at full opening for almost everything but extreme distance, where a slight stopping down will improve distance definition, but as distance and open landscape conditions need somewhat less exposure than usual, this is not an objection. This is done as indicated in previous paragraphs, by compromising the fixed-focus point and thus helping out the foreground. Naturally, when exposures are made on snow or water, it is necessary to stop down the lens on account of excess of light.

In special cases the near focus range can be extended by using the diaphragm. It is not necessary to touch the lens itself when stopping down, as the control is on top in plain sight, a pointer on a dial indicating stop in position. Thus at stop 8, the nearest object will be 9 feet away, stop 11.3 makes objects sharp at 7 feet, stop 16 at 5 feet, etc.

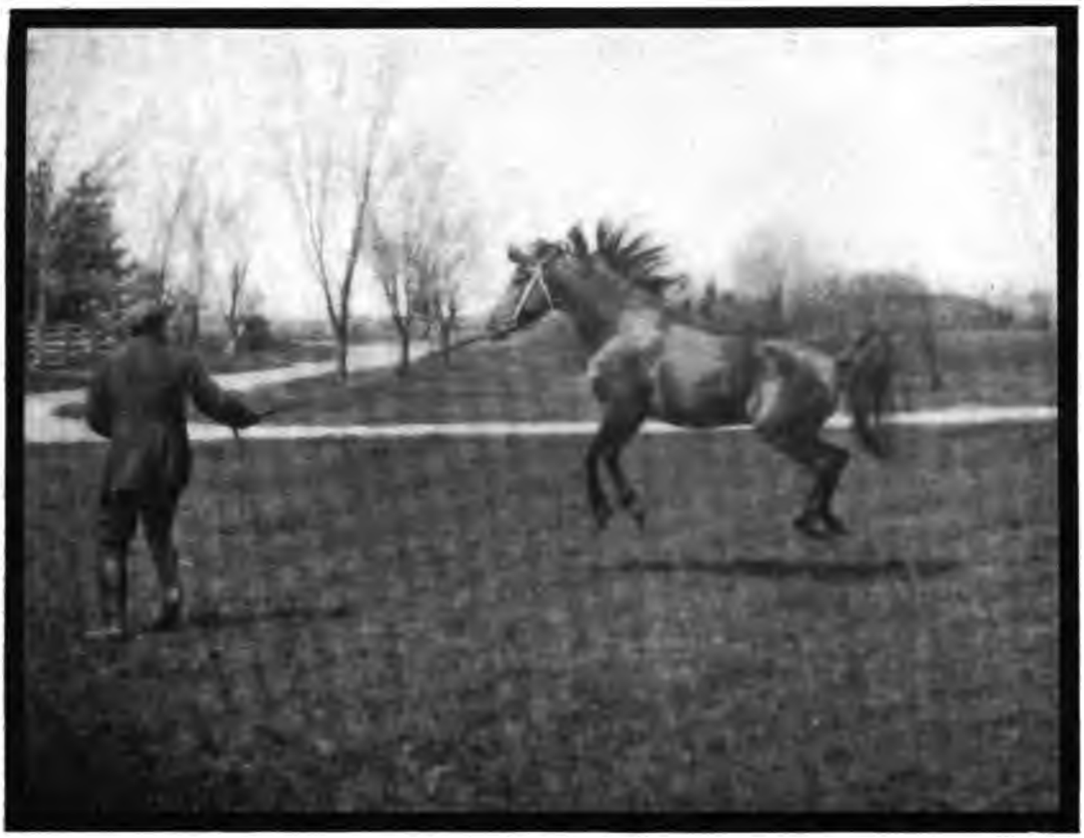
Not only is the image sharp, but the anastigmat lens gives more critical definition and therefore the negatives will stand more enlarging than usual. Moreover, since all planes are in focus, the enlargement can be pushed to great limits, much more in proportion than the ordinary larger size negatives made with longer focus lenses.

Besides equipping the camera with an anastigmat in perfect universal focus, the manufacturers added a focal-plane shutter of the Graflex type, having multiple slits in a long curtain. By turning the geared winder, any slot can be set at will. By adjusting the tension the speed at which the slot shall pass the film can be adjusted. The advantages of the focal-plane shutter are so obvious that they need no wordy explanation. The efficiency of these shutters is from three to five times greater than the ordinary between-lens shutters, depending upon how far from accurate the metal shutter may be. In addition, the high-speed exposures, which are impossible on the ordinary metal shutter, are of course just as easy as the slower ones, because of the focal-plane shutter used.

Since there is no focusing, the customary Graflex mirror can be dispensed with, thus saving moving parts and weight. From the description the reader will see that the Kodak and Graflex features are rolled into one, giving the greatest efficiency in the smallest space.

Not the least important of the minor features of the camera is the little trap door which pops open when the shutter release is pulled. As there is no mirror to protect the film when changing curtain apertures, the little trap was devised for the purpose and acts, in addition, as a sky shade for the lens. This feature is preferable to the safety curtain sometimes offered in focal-plane shutter cameras designed for film.

A direct vision finder allows the use of the camera at eye level, thus giving the most natural pictures with the most pleasing perspective. It is but an instant's work to bring the camera to eye level, sight the object and pull the shutter release. When desired, the camera finder may be used with a little mirror, which shows the finder image by reflection. This allows the camera to be used as a deceptive angle camera, photographing at right angles to the apparent direction the operator is looking. This feature is often of great value in the hands of the tourist in taking bits of life in foreign countries.



AN ARABIAN STALLION — C. F. STILES, BOSTON

From No. O Graphic Negative, Enlarged Five Diameters

One of the striking features of the No. O Graphic is its efficiency in motion photography. Motion may be arrested at low speed on the small camera which would require very quick shutter exposures on a larger one. To give a specific example, a 1–500th second exposure on a three-inch lens will make a sharp image without blur of an automobile at fifty miles an hour at 50 feet distance. A nine-inch lens on a larger camera would require 1–1500th second to stop the motion, provided the camera was used at the same distance. Moreover a 1–1500th second exposure would call for an f. 4.5 lens, which, as indicated by the table previously given, would have but few planes in focus, besides being undertimed. The three-inch lens would have nearly all planes in focus; and its 1–500th second timing would give increased density.

A very important item in a camera is the cost of maintenance. The films at 25 cents per roll of twelve allow picture taking at 2 cents a shot. Comparing with 4 x 5 at 75 cents for ten exposures, we can therefore save 5½ cents a negative; or, more to the point, we can make four shots to one 4 x 5 for nearly the same cost, and at that, lose no pictures from bad focusing.

The camera has already met with approval from the mercantile world. A contractor putting up a building wishes a number of photos per day of building progress. He cannot hire an expert photographer for this service, which has for its object a pseudo-cinematographic history of the progress of his work. In case of an accident, the camera record is wanted quickly. The fixed-focus feature is invaluable because of the inexperienced men who will probably use them. The negatives are filed in film books and need not be printed till necessary, saving further expense.

FREEDIE AND THE TEDDIES C. F. STILES, BOSTON

From No. O Graphic Negative, Enlarged Six Diameters

The army officer in his mapping work will find a camera of this sort an invaluable aid. The enlarged records will give the necessary detail, and the focal-plane shutter features make the camera independent of the weather or season of the year.

In many places the tourist with a camera finds difficulty in getting local life pictures. The truth is that even in the remoter countries, the camera is recognized as such, and the picture is a posed one and not the natural effect which the tourist is after. In the large cities, the Graflex is synonymous with newspaper men by the street-gamin, whose wooden pose after frantic efforts to get into the picture is followed by the question, "What paper will it be in?" A quick movement with the No. O Graphic and the subject is caught unawares, in his natural pose.

The No. O Graphic is an ideal camera to follow the baby's progress. A series of weekly exposures throughout its tender years will give a record of priceless value.

The camera will form a valuable auxiliary to the newspaper office, when a photographer is not available, as the camera can be worked by any one, or on special story work. In a similar manner, it is employed by police and detective bureaus, to record facts as soon as possible after their occurrence.

Engineering concerns have many uses for the camera in checking the progress of work, following the sub-contractors, reconnoitring for surveying, etc. The films are easily mailed and the resulting negatives can be stored in indexed film books to be available when needed. The negatives serve as records which need not be printed until needed, thus saving needless printing

WINTER SUNSET CHAS. O. DEXTER, NEW BEDFORD
Annual Exhibition, Boston Camera Club

expense. Such concerns as telephone companies make use of the camera to record each pole in a wrecked line, giving the engineer a quick record at slight expense of every detail in sight.

For lantern slides by direct contact, the No. O Graphic is particularly useful. The contact slide method is not generally satisfactory in slide making because emulsions are coated on the concave side of negatives and slides, and as they come concave sides facing in slide making, the contact is not optically good. But in the case of the No. O film, the flexible support easily adapts itself to the slide plates, giving microscopic definition. There are some who will object to the smaller size of the No. O negatives, which when projected are but 5–6ths the linear measurements of the usual slide opening, but this is easily remedied by using a projecting lens of slightly shorter focus, which will increase the image size on the screen.

Referring again to the matter of enlargements, we would call attention to the fact that very large enlargements will naturally be viewed at a longer distance than smaller ones, and this fact coupled with the facts that all planes are in focus at once in the No. O negatives, and therefore grow fuzzy equally throughout the enlargement, makes it possible to attempt larger ratios of enlargement than usual.

Recently the No. O Graphic Enlarging Camera has been put on the market to supplement the camera itself. It consists of a sliding front holding the No. O film, which can be adjusted by rack and pinion at varying distances. The No. O Graphic camera is attached to the specially designed front board, so as to utilize the lens used for making the original negatives in the enlarging process. This feature allows enlargements to be made of microscopic definition. The rear of the camera, which carries the plate holder, is joined to the front board by the camera bellows. A spring actuated ground glass serves for focusing, and the holder may be fitted up easily with mats for white margins.

HISTORIC COSTUME

From Elizabeth to Victoria

with Reference to its Pictorial Possibilities

By Chas. E. Dawson

Illustrated with Photographs by Elwin Neame.

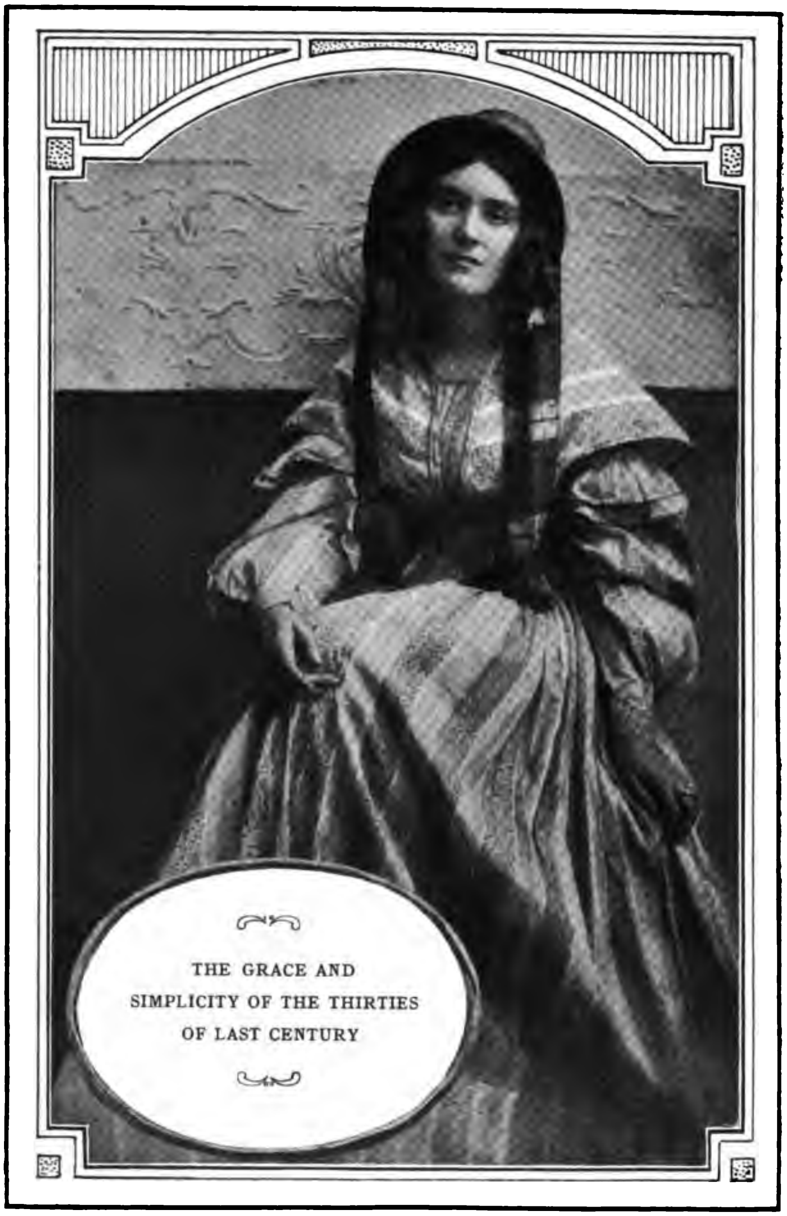
(Concluded from June)

WE find that a dress chronicle of the period, dated September 1, 1827, in which the writer's style and attitude of subtle snobbery would commend itself to the fashion editor of the most up to date of our inexpensive dailies, describes for us the "glass of fashion" of those days: —

"Those of the middle class belonging to *Cockney Island* must leave town, though the days are short and comfortless, the steamboats carrying them off by shoals to Margate. The pursuit after elegant modes of dress must carry us to the rural retirement of the noble and wealthy. Young ladies wear their hair well-arranged, but not quite with the simplicity of last month; but some who place their pride in a fine head of hair have such a multitude of ringlets that have all the *poodle-like* appearance of a wig. A few dress hats have been seen at dinner parties and musical amateur meetings, of transparent white crape ornamented with a small elegant bouquet of marabones. Dresses of India red, either in taffety or chintz, have already made their appearance, the chintzes have much black in their patterns; with these dresses are worn a Canezon Spencer, with long sleeves of white muslin trimmed with narrow lace. We have lately seen finished to the order of a lady of rank in Suffolk a beautiful pelisse of jonquil-coloured gros de Naples. It has large, covered buttons. A large pelering cape is made to take on and off; coloured bonne are now the rage; we are happy to say that some, though all too large, are in the charming cottage style and modestly tied under the chin. The most admired colours are lavender, Ester-hazy, olive green, lilac, marshmallow blossom, and Indian red."

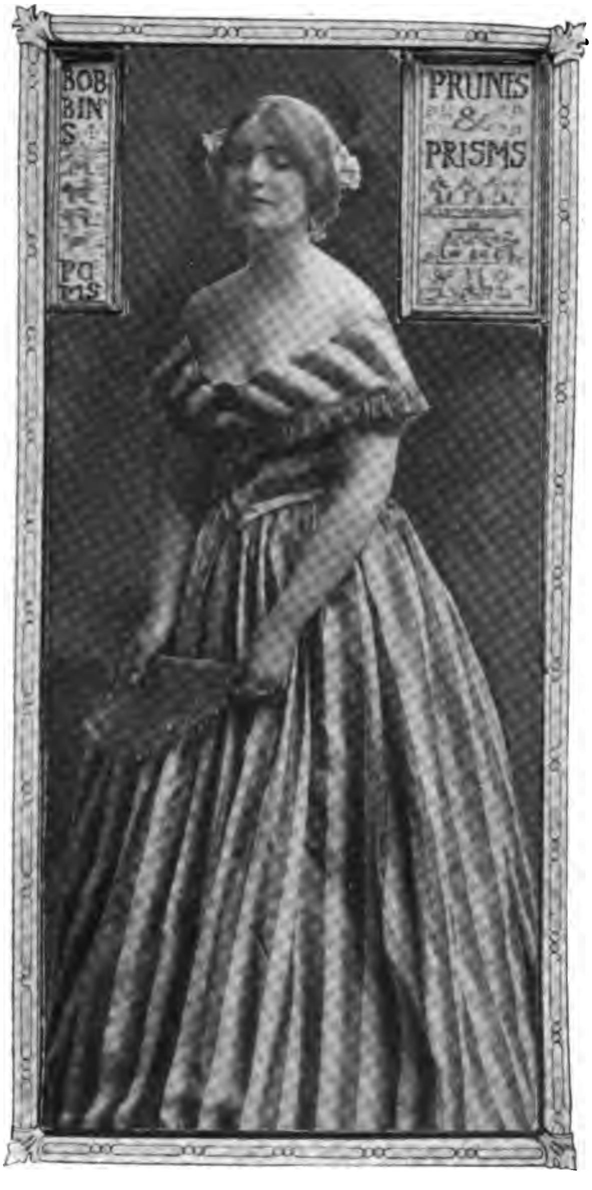
All of which reveals the elegantly simpering, prunes and prisms, young ladies who in their "charming cottage style" were the grandmothers of those of us who, living in a more strenuous age, can yet appreciate their excellent, not to say pictorial, qualities, and their simples and the samplers that have been so plentifully handed down to us. In 1830 the note of simplicity, as it grew older and further removed from the reign of wigs and patches, became more sincere. The striped and patterned fabrics, with their graceful folds, offer many a motive for a costume that would look distinguished and dignified amid the latest Paris fashions. By 1840 the shoulder fichus and capes had vanished to display to better advantage the beauty of my lady's shoulders. Fringes at the edge of sleeves and flounces appeared, and the three-tier skirt — since revived — first was worn. The 1840 dress, worn by Miss Gertrude Robins (the actress-playwright), was made for the wedding day of a fair young bride-to-be of seventy years ago, but alas! her lover died, and it was, with a few trinkets and lavender for fragrant memory, packed away in an oak chest. The lady died an old maid, and the costume was only taken from the box a few months ago. Its delicate needlecraft and dainty hand-printed pattern in shades of puce, lilac, and mauve, is indeed a fragrant and precious heirloom, and it is one of the most pictorially photographic gowns I have yet discovered.

The décolleté style, so far as England is concerned, reached its zenith in 1840, and for evening wear especially, bodices were cut so low that it needed all the artifices of the *costumier* and the wearer to keep them in position. The striped skirts were cut very full; those who make replicas of

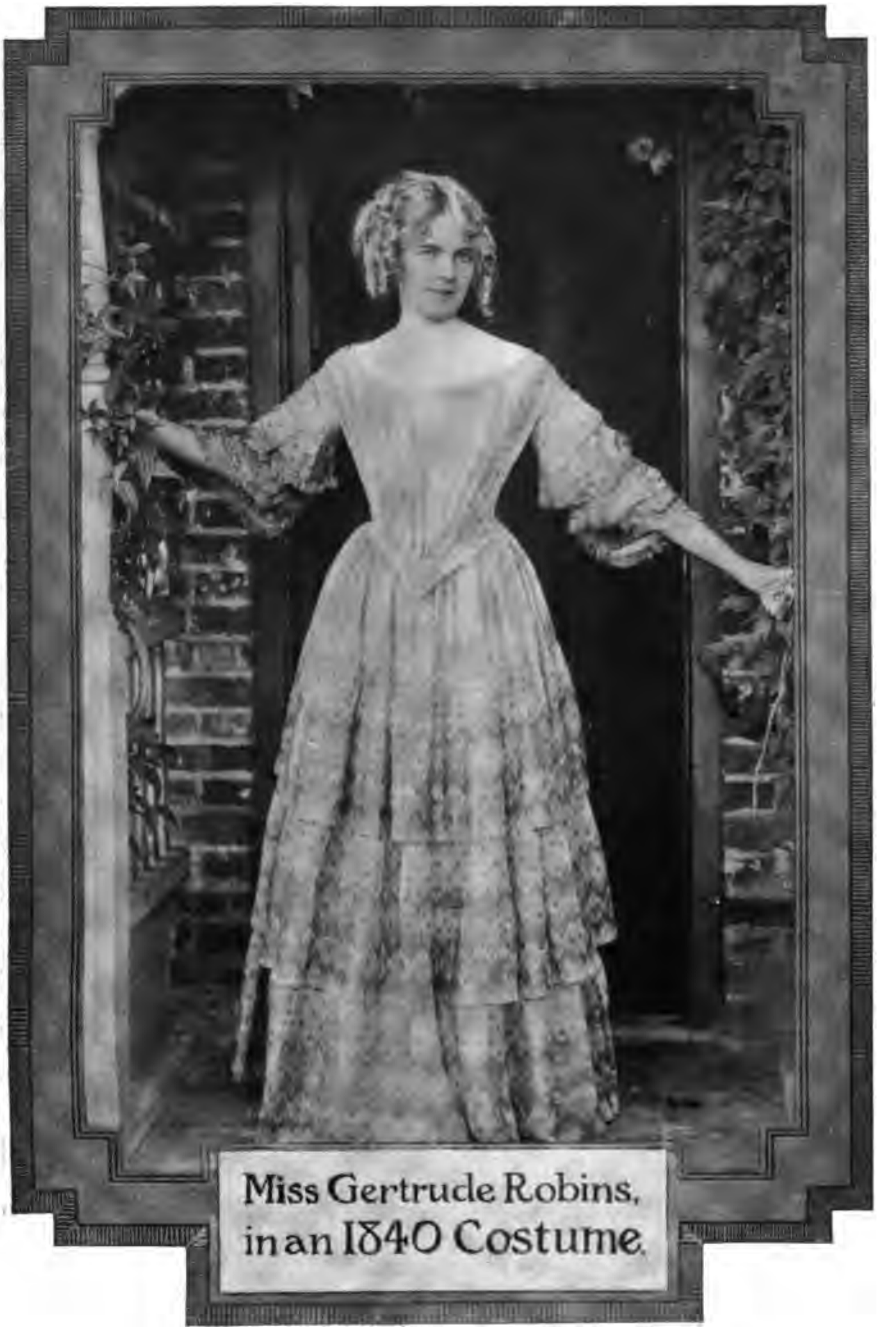


THE GRACE AND
SIMPLICITY OF THE THIRTIES
OF LAST CENTURY

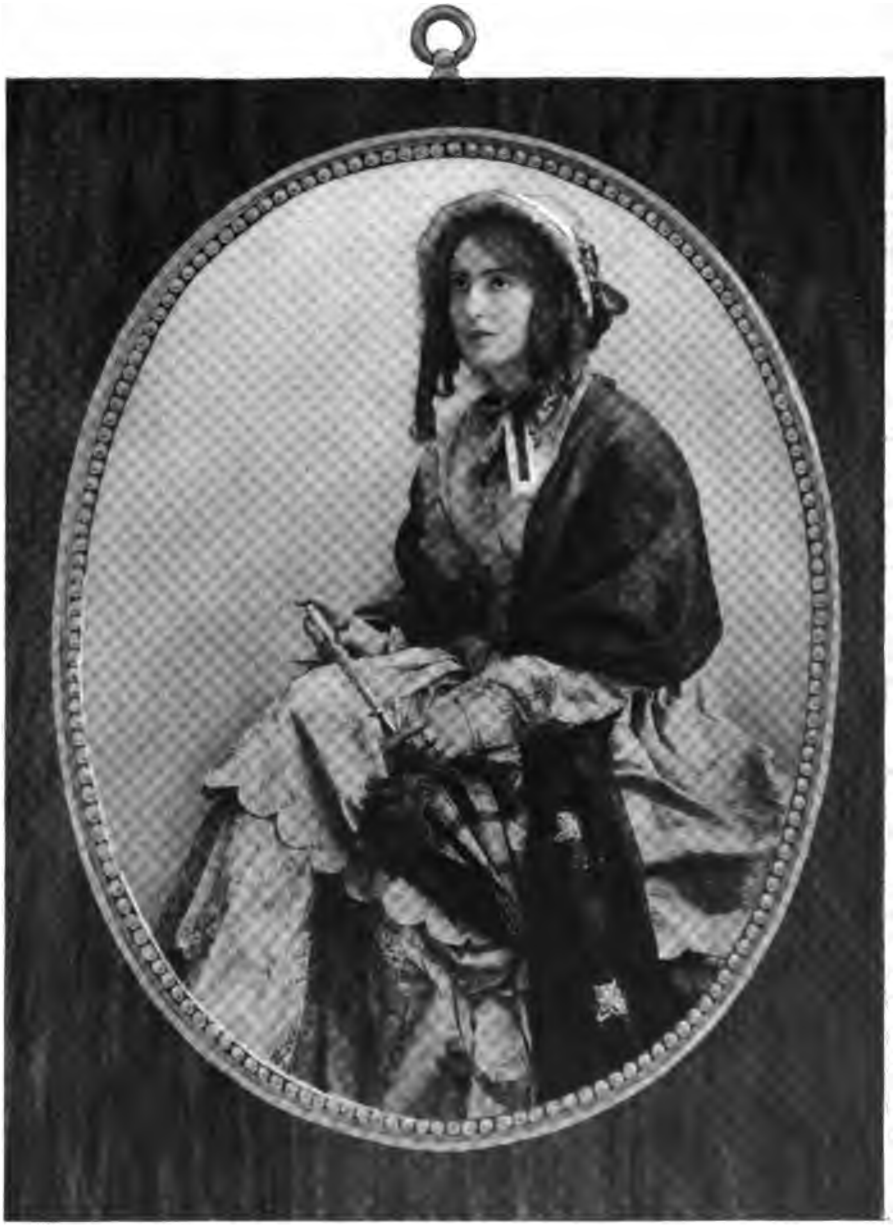
A GOWN OF 1830
ELWIN NEAME, LONDON



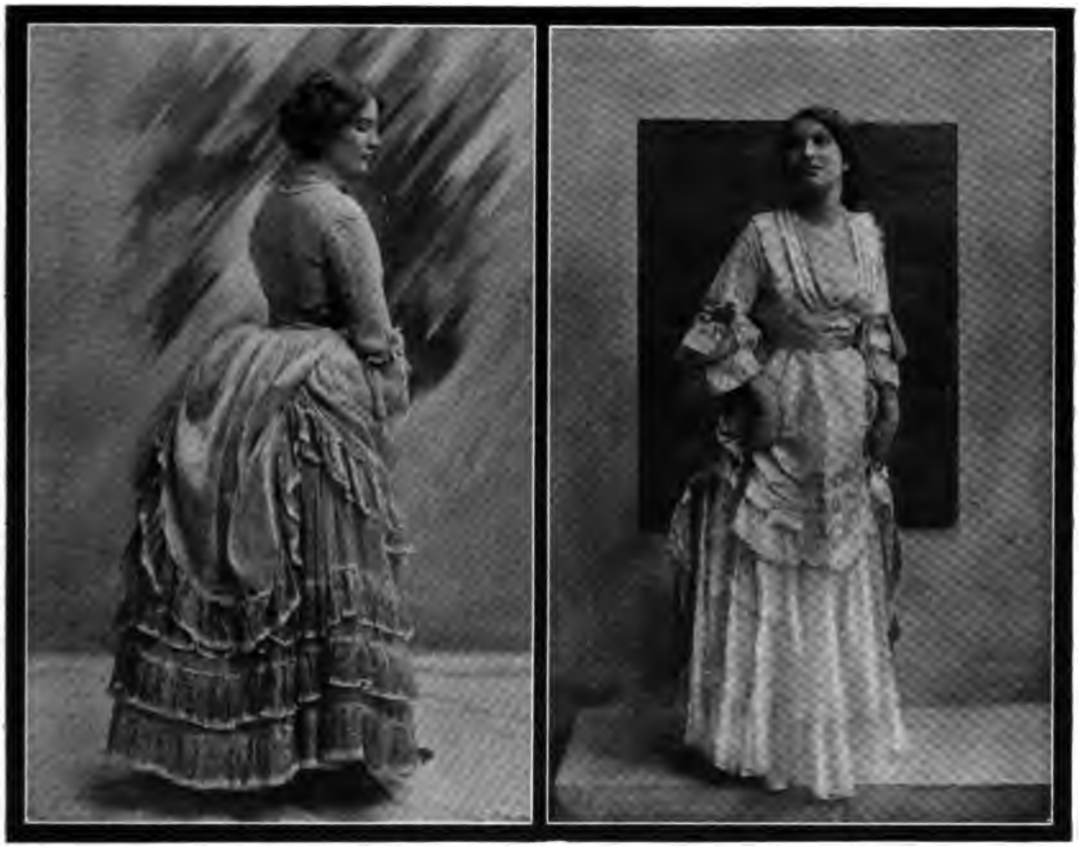
THE PRUNES AND PRISMS PERIOD, 1840
ELWIN NEAME, LONDON



AN 1840 GOWN
ELWIN NEAME, LONDON



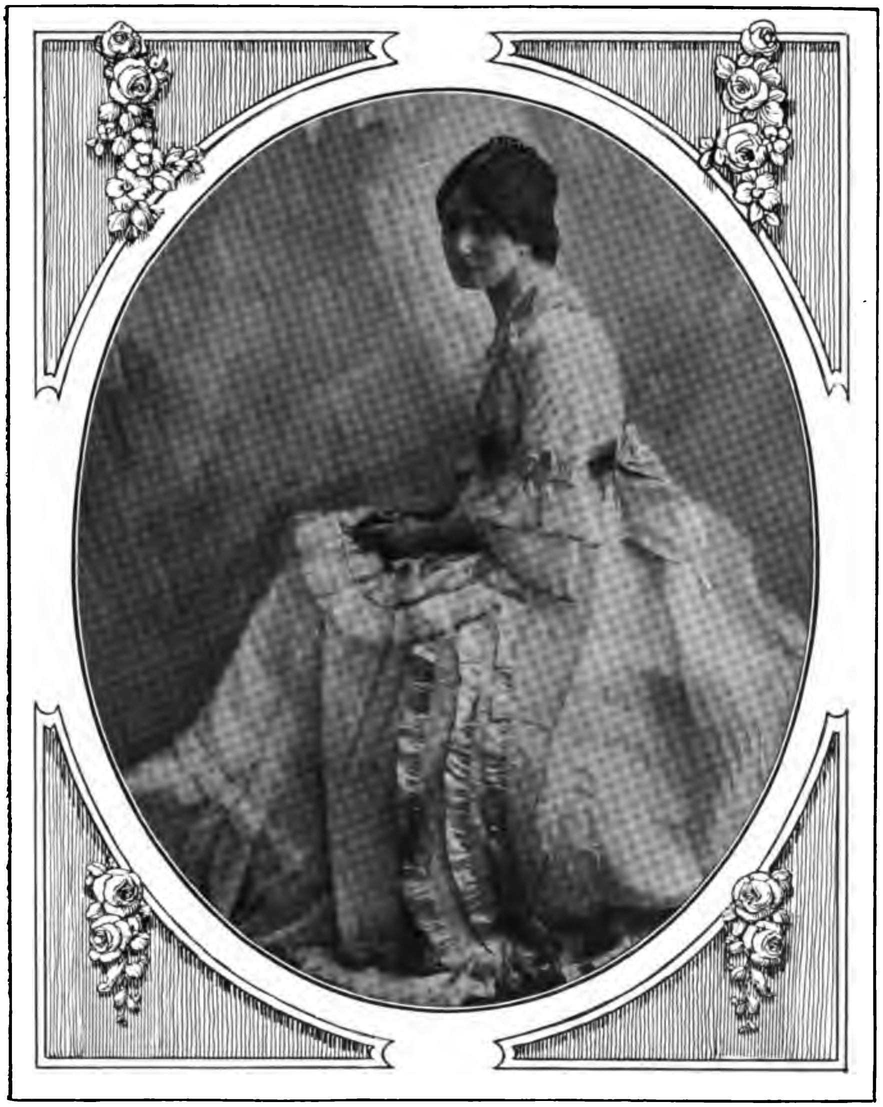
A MID-VICTORIAN COSTUME
ELWIN NEAME, LONDON



THE MODE OF 1870 ELWIN NEAME, LONDON

old costumes often fail to realize just how lavish they were in the good old days when they cut their cloth according to the coat, and not *vice versa*, as they do in these times. The failures of so many copies of old costumes to reproduce the spirit of the original model may usually be attributed to the latter stinginess of material, for it must be remembered that the whirligig of fashion in olden days was slow moving and cumbrous compared with its evolutions in our time. One gown with our grandmothers would outlast ten of their latter-day representatives. Then, a leisurely change of mode for the extreme seasons — summer and winter — would suffice in most cases; now, however, she who would be fashionable must be a bit of a quick change artiste to keep abreast of the feverish activity, of the fads and foibles of the smart set and their *costumiers*.

Modern well-dressed women have, though they may not know it, a whole range of historic styles from which to select little hints and features according to their tastes. The very act of selecting a phase, rather than imitating the whole of a costume or period as a motive for a dress, betokens the artist-designer, and the selection of the essentials is the quintessence of all art. Some artist in costume, for instance, has most intelligently and wisely appropriated the essentials of the 1850 costume for latter-day use, and the shoulder scarf of delightfully patterned fabric has done splendid work the last few seasons in lending the necessary touch of drapery to the otherwise severely cut gowns. The little parasol, too, has come along from our grandmothers' days, but the most intelligent appropriation of all from this period is the poke bonnet, which in all manner of lovely old-world shades lends a captivating coyness to so many fair motorists on the road. Its suitability for the



A VERY PAINTABLE GOWN OF 1880 ELWIN NEAME, LONDON

purpose, with its unlikeness to all other headwear in present use, has made it, as it deserves to be, a most successful revival.

The serene and ample sedateness of the costume of 1880 is too recent to wear the glamour of romance that glorifies the modes of earlier times, though as Sir John Millais, Mrs. Langtry, and the rest of the late Victorian Aesthetes found, it affords most dignified and decorous figure compositions.

Whenever it is discovered that Paris does not possess the monopoly of clever *costumiers*, and America and England begin to formulate their own modes, it is probable that the Victorian styles may be adopted as a basis upon which the new national costume may be evolved. For the cosmopolitanism of dress which robs the drawing-room denizens of New York, Vienna, Boston, or London of all racial individuality is on the face of it bad for the maker of pictures.

THE OLD MILL POND F. A. SAUNDERSON, BOSTON

First Prize, Landscape Class, Boston Camera Club Exhibition

A PRACTICAL POST-CARD PROJECTOR

STANLEY CURTIS

ON the return of Uncle Sam's fleet from its globe-encircling cruise, the writer was presented with a collection of several thousand souvenir post-cards and photographic views of points of interest in all parts of the world, by a friend on board the U. S. S. "Kansas."

Actuated by a desire to see the views enlarged upon a screen, so that their beauty might be more fully appreciated, and not wishing to make transparent slides of them, he started a series of experiments, which resulted in the instrument described in the following paragraphs.

Although principally intended for home use, this little instrument will be found capable of producing excellent results in a fairly large theater, providing the place is well darkened. The picture projected from an opaque view by reflected light is never as brilliant as one produced by the rays of light passing through a transparent slide. However, the convenience of the opaque projector offsets this disadvantage to a great extent.

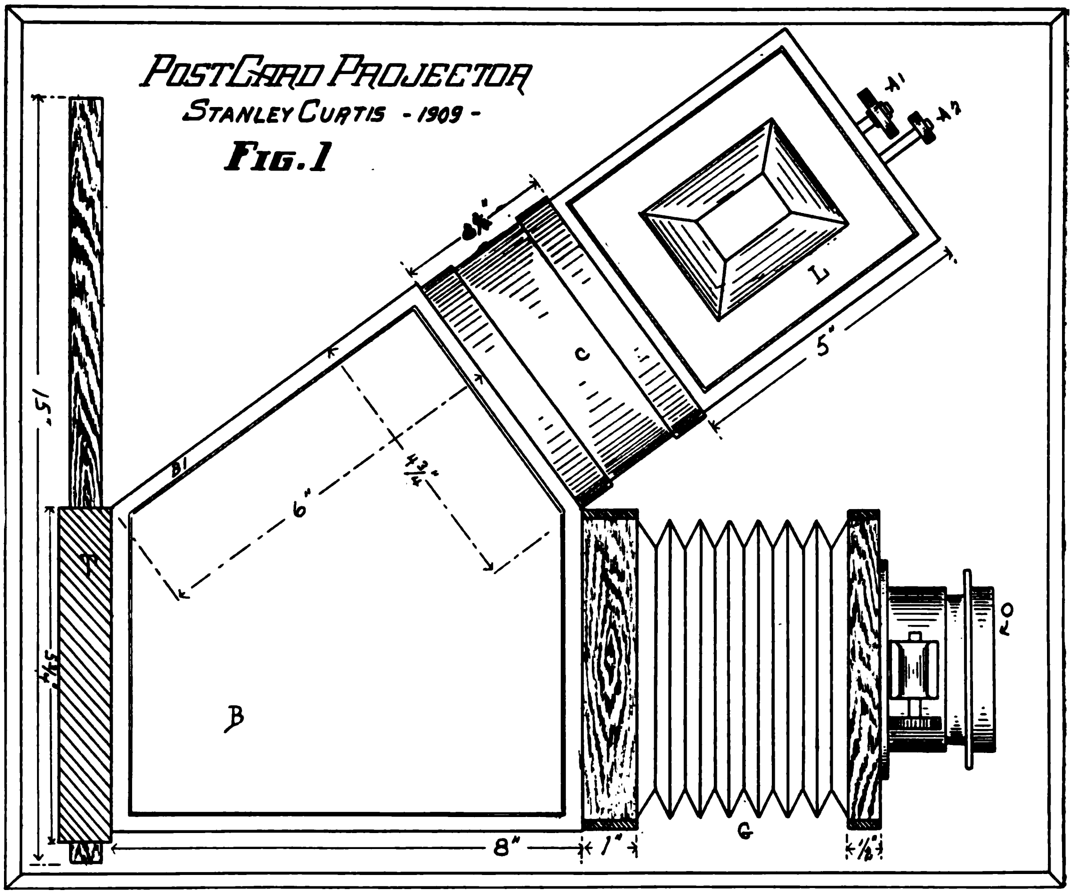


Fig. 1

In this instrument pen and ink sketches, blue-prints, photos, flowers, butterflies, etc., may be shown with equal ease.

A glance at Figs. 1, 2, and 3 will show the principle of operation. A powerful illuminant, A, Fig. 3, is placed in the lamp house, L, Figs. 1 and 3. The rays of light from this pass through the condensing lenses, C, Fig. 3, and are projected upon the post-card or view in the view carrier at D, Fig. 3. Referring to Fig. 2, the rays of light are reflected from the view (D) and pass through the objective lens (O) which projects a magnified image of the view on the screen.

We will first consider the baseboard. A piece of oak 15 x 18 x 1 inches is nicely polished and the edges beveled.

The body (B) and lamp house (L) are made of Russia iron of sufficiently heavy gauge to be fairly rigid. The joints at B1 may be soldered but the entire lamp house must be lap-jointed as considerable heat is developed here. A tinsmith will make these two boxes for such a small sum that it hardly pays the amateur to do the job, unless he is supplied with the necessary tools. The body (B) is of a peculiar shape, rather difficult to form up unless a rough wooden box of the required size and shape is first made and the sheet iron bent up around it. As this box has no bottom, it is an easy matter to slip the wooden form out of it when completed.

The body (B) has three openings cut in it; H1, H2, and H3, Figs. 2 and 3. The opening at H1 is 5 inches square. H2 and H3 are circular openings 4½ inches in diameter. The lamp house (L) has a circular opening 4½ inches in diameter at H4, Figs. 3 and 5, and an opening in the

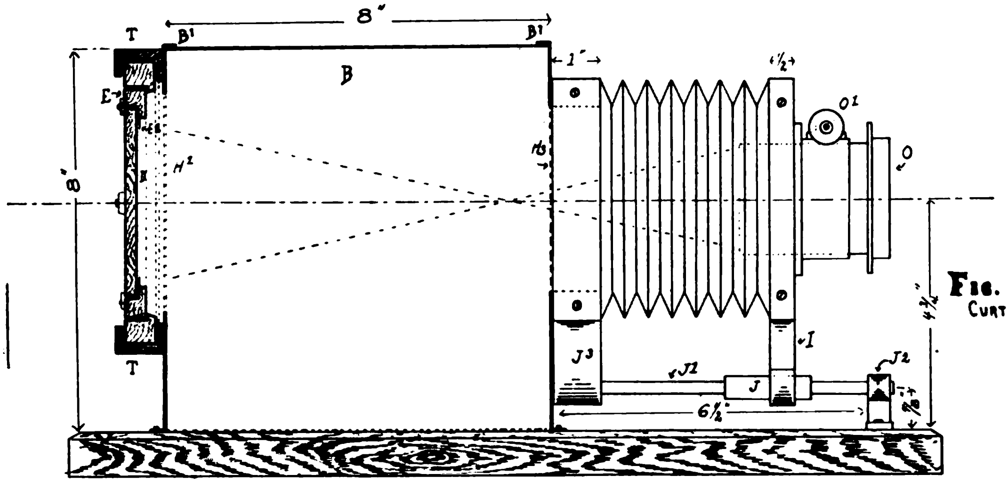


Fig. 2.

shape of the section of a torus, about 2 x 3 inches, as indicated by the dotted lines at H5, Fig. 5. A hinged door is placed as indicated by dotted lines at H6, Fig. 3. A ventilator, L1, is placed in the top of the lamp house.

Body and lamp house are permanently fastened to the baseboard by small wood screws.

The bellows (G) was taken from an old stereopticon. A set of this size may be purchased from any second-hand dealer in projection apparatus for a nominal sum.

The objective lens to be used will depend upon the distance between projector and screen. For home use a fairly wide-angle lens is best, as a large picture may be obtained with the machine set comparatively close to the screen. This instrument will accommodate lenses of from 8 inches to 14 inches equivalent focus. In Fig. 2 the bellows is set for a lens of 12-inch focus,—a very useful size.

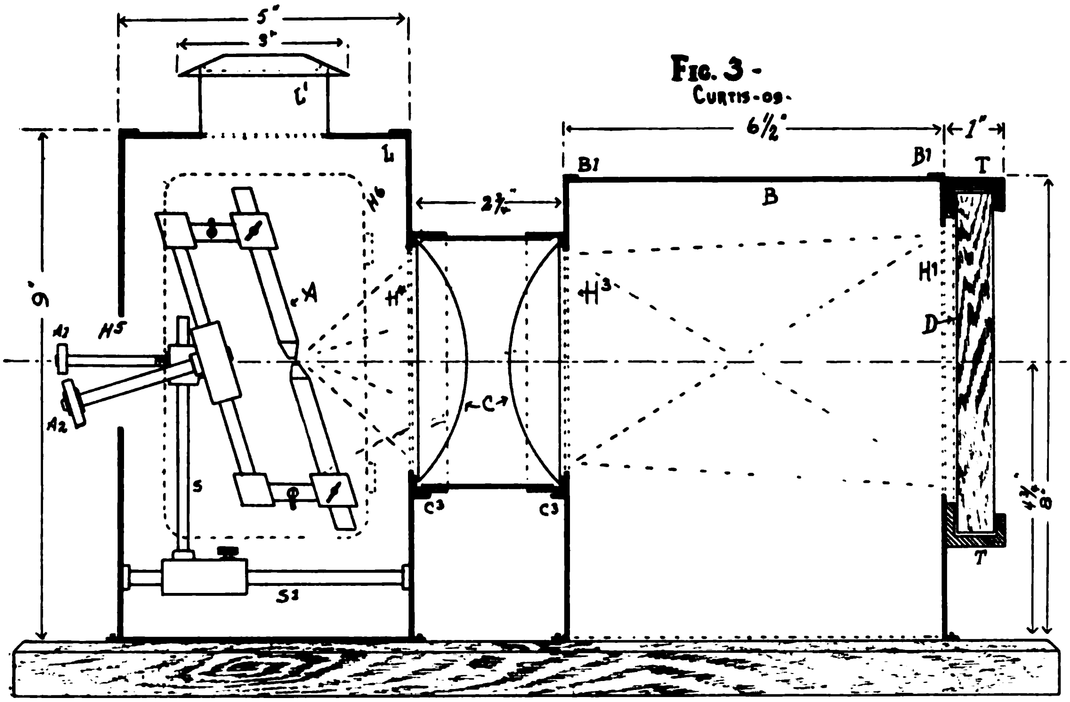


Fig. 3.

Fig. 4.
Curtis-09.

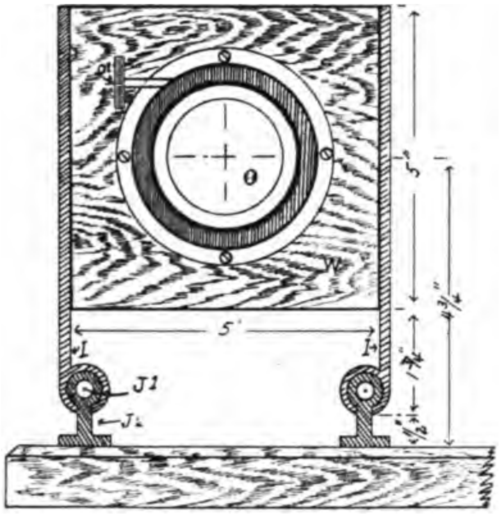
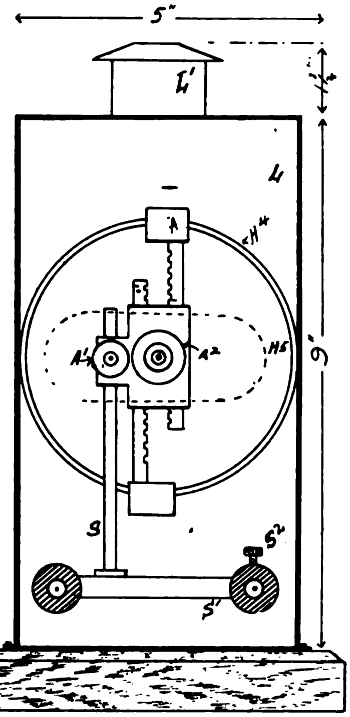


Fig. 5
Curtis -09-



The objective is mounted on a nicely finished piece of oak of the dimensions given in Fig. 4. Two strips of sheet brass, 3-16ths inch thick, bent as shown at I, Figs. 2 and 4, support the lens and wooden block. The brass strips are bent around pieces of tubing (J, Fig. 2) and soldered. These pieces of tubing slide easily over the ½-inch brass or steel rod (J1), which is supported as shown at J2 in the front and by the ends of two more brass strips at J3, Fig. 2, fastened to the block of wood, which supports the rear end of bellows. A circular opening 4½ inches in diameter is cut in this wooden block.

The condensing lenses (C, Fig. 3) may be purchased complete in a brass collar or holder, C, Fig. 1. They should be 4½ inches in diameter and of a clean, white color.

The condenser holder should be an easy sliding fit between lamp house and body, supported

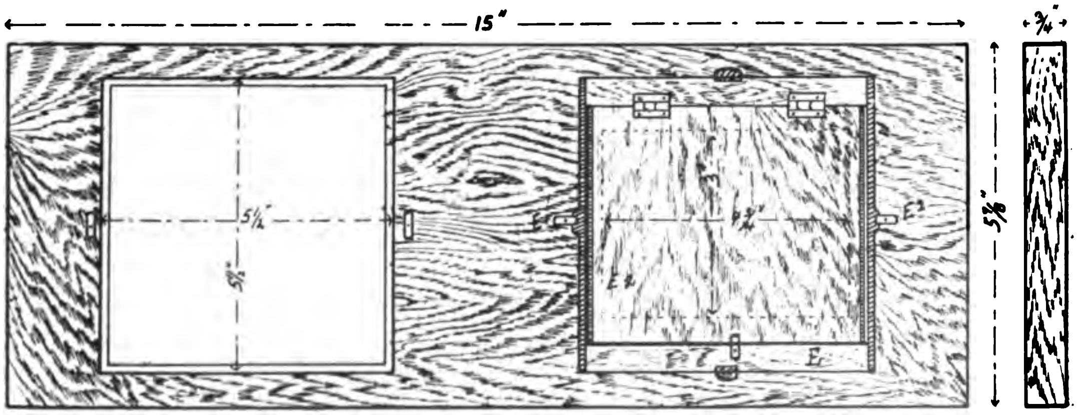


Fig. 6 View Carrier Curtis-09-

WINTER EVENING LOWELL CLAPP, BOSTON

Annual Exhibition, Boston Camera Club

by a couple of projections at the bottom, C3, Fig. 3, so that the holder may be quickly lifted out for the purpose of cleaning the lenses.

The view carrier may be varied to suit the taste of builder. The one to be described has the advantage of a quick and invisible change of views and the ability to use a view in either an upright or a horizontal position by simply taking out the kit (E, Figs. 2 and 6) and replacing it in the desired position. It is held in place by the buttons, E1, Fig. 6.

The mask covering the edge of the post-card is shown at E2, Fig. 2, and by dotted lines at E2, Fig. 6. It will be noticed that the dimensions of the aperture in the mask are 3 x 4¾ inches. The standard post-card size is 3¼ x 5 inches, so the mask merely forms a frame for the view.

The blank opening at the left in Fig. 6 shows appearance of carrier with kit removed. A cross-section of the carrier may be seen in Fig. 2. The carrier slides freely in two troughs (T) bent up of ⅛-inch sheet brass and soldered to the back of body.

Choice of the illuminant will depend on surrounding conditions. Any one of the following may be used, their relative values being shown by the order in which they are placed: electric arc, oxy-hydrogen or calcium, gasoline vapor (mantle), acetylene gas, special electric incandescent, Welsbach (gas).

The electric arc is by far the best, and its use is by no means limited to a place fitted with heavy service wires. The writer obtained excellent results by using a home-made transformer on a 60 cycle, 110 volt alternating current circuit. The transformer stepped the voltage down to

THE SWAN — H. S. ADAMS, BOSTON

Annual Exhibition, Boston Camera Club

25 volts. The current at the arc was 20 amperes. The current therefore on the 110 volt side was about 5 amperes, — a safe load for any house circuit.

The expense of operating at 10 cents per kilowatt is about 5 cents per hour.

If the builder has direct current in his house, a still more satisfactory light may be obtained.

In this case a resistance, such as a bank of from 6 to 10 32 candle power lamps, should be inserted in series with the arc lamp. The light obtained will be wonderfully brilliant and absolutely noiseless. The cost of operating will be from 6 to 10 cents per hour.

A hand-feed arc lamp may be obtained from the second-hand man for a couple of dollars.

The carbons used should be of small diameter, say ⅜ inch for such a light current, and, if alternating current is used, a flat mark should be filed down the side of both upper and lower carbon. The flat surfaces should face the condenser when carbons are placed in the lamp. The purpose of this mark is to keep the arc from "wandering" around the carbons.

When using alternating current the upper carbon should be directly over the lower, while with direct current the lower carbon should be advanced slightly forward of the upper.

In connecting up for direct current the arc will sometimes be found to burn "upside down." After the lamp has been lighted a couple of minutes the current should be shut off and the carbons examined at once. If the upper carbon is the hotter and glows longer, the polarity is correct. In case the lower carbon is brighter, the wires at the switch should be reversed. With alternating current both carbons are alternately positive and negative, so the connections do not matter.

The selection of a good grade of carbon is important. The writer has found the imported "Electra" carbons superior to any other on the market.

SUMMER W. K. MENNS, MALDEN

Annual Exhibition, Boston Camera Club

The oxy-hydrogen or calcium light is a very powerful form of illuminant, but the cost of operating almost prohibits its use.

The gasoline vapor light will be found economical and very satisfactory for parlor and small hall use.

Acetylene gas is a general favorite where electricity cannot be obtained and is ideal for home use. A safe and efficient acetylene generator can easily be constructed by the amateur.

A special 100 candle power incandescent electric lamp for stereopticons is now on the market. While it cannot compare with the arc for power and purity of color, still its cheapness, freedom from heat and noise, together with its absolute safety, highly recommend it. These lamps may be purchased from the stereopticon dealer for $1.50, and are operated from the 110 volt alternating current or direct current circuit.

The Welsbach or gas mantle light is within reach, of all. The "Inverted Mantle" form should be used, as this light is more concentrated. Very good results may be obtained with this illuminant in a well darkened room.

Setting Up and Operating.—For home use an ordinary bed sheet may be used as a screen. If the muslin is given two coats of a good cold water paint, such as white "Alabastine," the pictures will be improved from twenty to forty per cent.

The instrument should be set as nearly opposite the center of the screen as possible. The size of the picture will depend upon the distance between machine and screen and the focus of objective lens. By increasing the distance the picture will be made larger, but will lose some of its brilliancy.

Assuming that projector and screen have been set and the room darkened, the operator places a piece of clean white paper in the view carrier and starts the light. A couple of clean-cut black lines should previously have been drawn across the paper. Move the objective lens backward and forward until the black lines show up sharply on the screen. Now move the lamp (A, Fig. 3) backward and forward on the rods S1, Fig. 3, until the projected light on the screen is brilliant out to the edges and free from prismatic color. If lamp is not exactly centered it may be raised, lowered, or shifted from side to side by loosening the handle A1, Fig. 3. When a good, clean light is obtained, a delicate focus may be secured by carefully turning the rack and pinion adjustment at O1, Fig. 2.

The views must be placed in the carrier *upside down.*

A word here about that most common annoyance of motion picture operators, — the cracked condensing lens. These lenses should fit the holder *loosely*, so loosely that they will "rattle" freely when holder is shaken. In nine cases out of ten a condenser is broken because it has not room enough to expand when it becomes hot.

With the view carrier described a new post-card may be inserted in one side of the holder while the last one is being shown.

By using a piece of ordinary soft wood faced with black velvet in place of view carrier, photos, butterflies, etc., fastened on with thumb tacks, may be projected upon the screen.

In conclusion, the writer would advise the operator to carefully clean all lenses before using, as a small amount of dust will reduce the brilliancy of the picture to a remarkable degree.

ORTHOCHROMATIC PHOTOGRAPHY

ARTHUR HAMMOND

EVERY photographer who takes his art at all seriously and who endeavors to portray things as he sees them rather than as the camera sees them, avails himself of the advantages offered by orthochromatic plates and a ray filter. This is undoubtedly a fact, and orthochromatic methods are very generally employed, yet there are many who have not so far thought of applying such methods to their own work. They know there are such things as orthochromatic plates and they have seen cuts of ray filters in dealers' catalogues, but the thought is "not for mine," for the process, as well as the name of the process, is "all Greek" to them. And there are even some who have never heard of such things, though they have often, no doubt, used orthochromatic films without knowing it. It is for those who do not know and for those who have not fully realized the advantages that the following notes are written.

There is nothing difficult about orthochromatic work, nor does it require any great amount of thinking. Everything has been made so simple and easy by the manufacturers and dealers that, once the underlying principles are thoroughly grasped, it will be found to be very little different from ordinary work except as the results are concerned, there the difference is very marked and is entirely in favor of the orthochromatic methods.

Briefly, the explanation of the process is just this: It is well known that when photographing colored objects some colors come out too dark and others too light; blue comes out light, and yellow and red dark. It would be difficult to properly explain the reason of this without going into abstruse explanations as to the difference between the visual intensity and the chemical actinism of the various

THE SWAN (FIG. 1) ARTHUR HAMMOND, BOSTON

portions of the spectrum, but all photographers know by experience that this is so. White light is made up of the following colors: red, orange, yellow, green, blue, and violet, — the colors of the rainbow, which is nothing more than nature's gigantic spectrum.

The violet and blue rays affect the photographic plate very strongly, so much so that such colors are easily over-exposed and so come out white on the print. Green affects an ordinary plate very little; and yellow, orange, and red have practically no effect at all. That is just the reason why a red light can be used in the dark room.

Now, an orthochromatic plate is bathed in certain dyes which render it more sensitive to yellow, and consequently to green, which is blue and yellow mixed. Some plates are made sensitive way down to orange and red, and are consequently invaluable in copying paintings and in many branches of scientific work; but for ordinary landscape work and portraiture such extreme correction is unnecessary.

The amount of extra sensitiveness to yellow and green thus given is, however, not nearly sufficient; the violet and blue are still much too powerful, so a screen of yellow glass of a particular tint is placed in front of the lens, or between the lens and the plate, which has the effect of cutting out a good deal of the blue and violet light, thus giving the yellow and green a chance to catch up.

The colors blue and yellow play an important part in any landscape. The sky, where there are no clouds, is blue, grass and foliage are green (blue and yellow combined in varying proportions), while yellow is found again in the browns of the tree trunks and branches, so that if the fundamental rendering of these primary colors is incorrect, all the colors in the landscape will be rendered either too dark or too light according to which color predominates.

Many of my readers, I am sure, have seen landscape photographs in which the sky is rendered as dead white and the grass and trees nearly black. If it were not for the fact that the grass and trees reflect a good deal of blue light from the sky, there would be hardly any detail in them at all.

So much for pure landscape; and while even in quite a simple picture the whole range of the spectrum is often represented, the inclusion of figures means the introduction of more color. The girls in their summer frocks are disappointed when a pale pink is represented as black, or the blue trimmings on a white dress are lost in a hard mass of detailless white paper. So if you can equalize to some extent the sensitiveness of the plate or film to the different colors, you will get not only a more correct rendering of tones, but a more pleasing and a more natural picture.

The visual intensity of the colors is different from the chemical actinism, and the use of ortho plates and a suitably adjusted ray filter lessens this difference to a great extent, and therefore the colors are rendered more as they appear to the eye and not so much as they affect the plate.

The only trouble is that when using a screen the exposure has to be increased according to the density of the screen, but this is not a very serious drawback.

In bright summer light, using rapid plates and stop f. 8, the correct exposure for an ordinary landscape would be about 1–45th second. So if a three-times ray filter is used, — that is to say a filter that increases the exposure three times,— the exposure would have to be 1–15th second, instead of 1–45th, in order to get a properly exposed negative. That is quite within the limits of hand-camera work. It is quite possible to give as long an exposure as this without showing any signs of vibration, and it is not too long an exposure for slow moving objects.

That is all it is; just a little longer exposure than usual and you have a photograph in which the sky is more like sky and the grass and trees are more like real grass and trees.

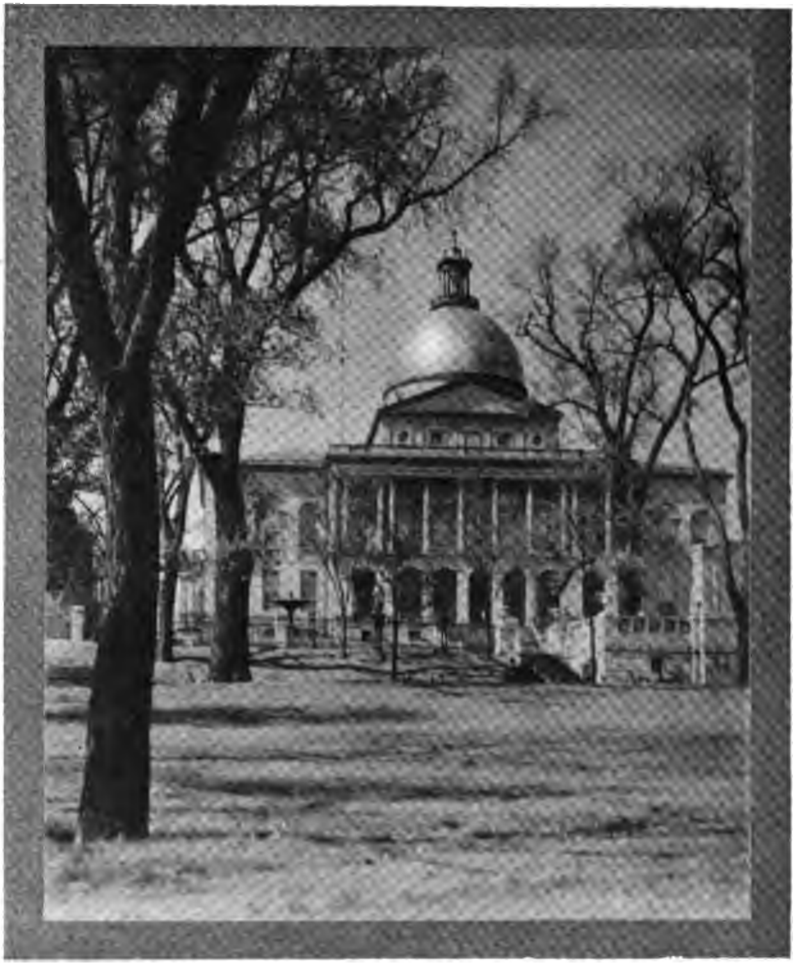
The picture of the swan (Fig. 1) is a proof that instantaneous work can be done when using a ray filter. This is obviously a snap-shot. You can take my word for it that swan was not trying to keep still, yet it shows no sign of movement. This was taken on a Cramer Instantaneous Iso plate with a three-times ray filter.

The advantages in using these plates and a ray filter for landscape work are innumerable. First of all, we are enabled to get the sky and the landscape on the same plate. Not only are we saved the trouble of printing in skies, but we get the sky and the landscape more correct and more in accordance with nature's laws. Besides this, the landscape portion of the picture is greatly improved. It stands to reason that if we have the sky represented by white paper, as we often do when using ordinary plates, those parts of the landscape that are equal in tone and color to the sky are also represented by white paper. If the sky is reflected in water, the reflections are wrong and it would be difficult, if not impossible, to properly correct these reflections by after treatment of the negative. It sometimes happens that printable clouds are secured on the negative when no filter is used. That is so, but they are not the real thing, and we only get them when the clouds are very pronounced and the landscape part is very much under-exposed. When using a ray filter the blue light from the sky is held back and the yellows, greens, and browns of the landscape are helped on, and thus the exposure required for the sky and the landscape is more or less equalized.

By using a filter we get the landscape and the sky, both properly exposed, on the same plate, and thus get a complete picture. A landscape with no sky is not complete; the sky is an essential part of the scene.

Of course if there are no clouds in the sky at the time the picture is taken, there will be no clouds in the picture; there will still be a sky. The sky portion will not be represented by a blank expanse of white, but will be of a tone equal in value to the tone of the blue sky.

The picture of the Massachusetts State House (Fig. 2) is an example of more truthful rendering



THE STATE HOUSE, BOSTON (FIG. 2) ARTHUR HAMMOND, BOSTON

of tone values. When wandering about on Boston Common looking for subjects to illustrate the advantages of orthochromatic methods, the golden dome of the State House, seen against a dark blue-gray sky, struck me as being very suitable. Now, this yellow dome with the sun on it appears much brighter to the eye than the sky behind it; but if it were photographed on an ordinary plate with no filter, the sky would probably be rendered as white, and the dome, on account of its color, would appear considerably darker, and thus the effect secured would be exactly the reverse of the effect seen. By using an orthochromatic plate and a three-times filter the tones are more correctly rendered, and the dome appears considerably brighter than the sky, as it should be. This effect is all in the negative; the picture here reproduced is just a straight print on a developing paper, and the sky is not faked in any way.

Figure 3 also is a perfectly straightforward picture, and the chief point in this is the little white cloud behind the distant poplars. Without this the picture would have been a failure. Note also in this the rendering of the tones in the grass and the strongly marked shadows. If the grass had been too dark these shadows would have been lost.

In this picture also a slight defect of over-correction will be noticed, the yellow gravel of the pathway in the foreground being a little too white, but this could very easily have been corrected

A VIEW IN THE FENWAY, BOSTON, (FIG. 3) ARTHUR HAMMOND, BOSTON

in printing. For this picture also a Cramer Instantaneous Iso plate was used, and a three-times filter, the exposure being 1-10th second.

The two little studies of still life (Figs. 4 and 5) are put in to show in a striking manner the effect of the orthochromatic plate and screen in the rendering of colored objects. The Cramer plate box is bright yellow and the binding round the edge is dark blue paper. That is to say, the yellow cover appears very bright to the eye and the edges look dark, and this is just the effect seen in Fig. 5, which was taken through a screen on a Cramer Iso plate. In this print the yellow cover is just about the same tone as the white paper of the envelope attached to it, and the binding round the edge is quite dark. Whereas, in the other picture (Fig. 4) the yellow box is much darker than the envelope, and the edges are practically white. The other objects in the picture, a yellow tobacco box with a blue stamp on it, a cigarette box with blue and gold in the color scheme of the cover, and the London *Amateur Photographer*, with its blue cover, also show a more correct rendering of tones. Note also the yellow string on the cigarette box, which is dark in one picture and light in the other.

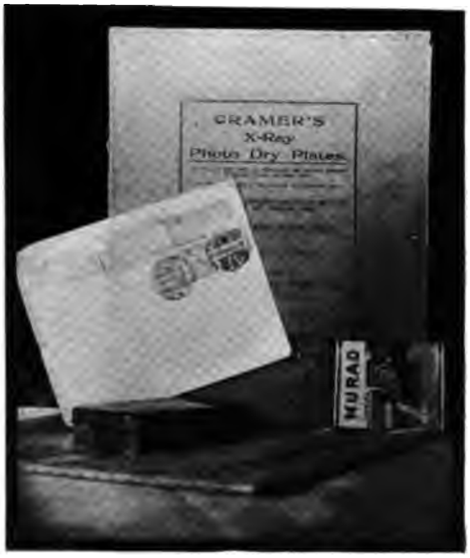


FIG. 4
Non-Ortho Plate and No Screen. Yellows too Dark and Blues too Light

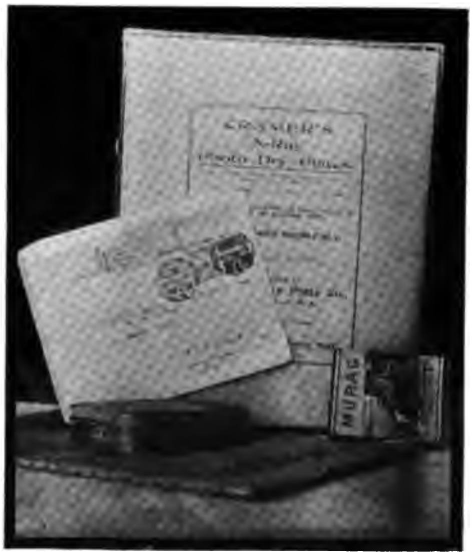


FIG. 5
Ortho Plate and Three-times Screen. Color Values More Correct

I used a Cramer X-Ray plate box because it was bigger than others I had, but the boxes in which the Cramer Instantaneous Iso plates are packed are exactly the same color. Get a box, therefore, and compare the colors on it with these reproductions and then use the plates.

Such methods as these are, of course, equally effective and beneficial in portrait work, but in such work, when comparatively long exposures have often to be given even without a screen, the necessity for increasing the exposure might often be an insurmountable obstacle. However, when conditions are favorable and the increased exposure is possible, the improvement is very marked.

You see, I have to bring in something about portraiture. As little Jeff remarks, "You can't keep a squirrel on the ground!"

If orthochromatic plates and a ray filter are used for portraits, not only will the colors of the sitter's clothes be better rendered, but the rendering of the flesh tones and the hair will be much better.

Yellow hair, for example, will look fair in the picture, whereas with ordinary plates it comes out quite dark. Then, again, if the sitter has any freckles — which are mostly yellow — these will be rendered more as they appear to the eye instead of being so much exaggerated that they come out as black spots.

The example I give is a very extreme case. This is a small boy at the Children's Hospital in Boston who had a dislocated shoulder and a fine bunch of freckles, — just about as many as he could possibly have on his face. Both pictures are entirely unretouched, but the one taken through the screen shows a marked improvement, the general tone of the complexion is much better, and the freckles show in the picture even less plainly than they do to the eye. This is a very extreme case, but even here only a very little retouching would be necessary to remove the freckles altogether. This, however, I consider would be a mistake. Tommy without his freckles would not be himself; they are his chief characteristic.

There are many sitters, however, who have freckles that are practically invisible but which show plainly in a picture. If a ray filter were used for such sitters the freckles would not show at

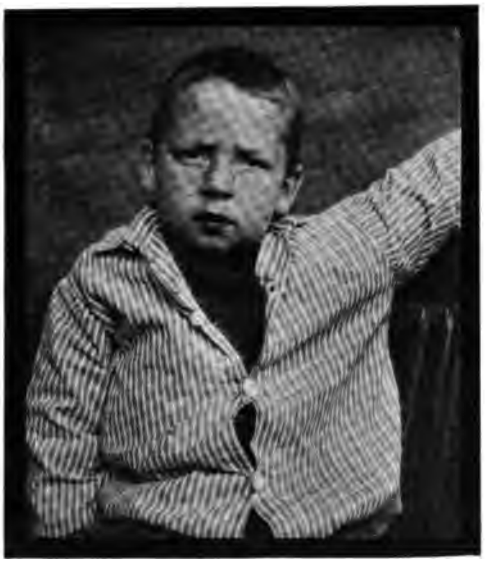


FIG. 6
Iso Platf, But No Screen. Freckles Very Much Exaggerated

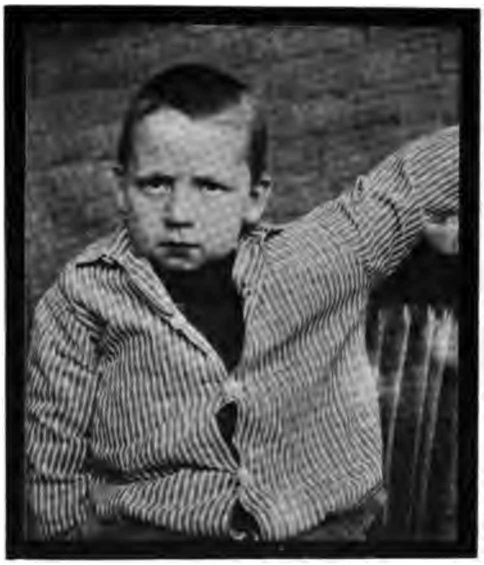


FIG. 7
Iso Plate and Three-times Screen. Freckles Barely Visible

all, provided the plate were fully exposed. So when taking pictures out of doors or in a good light, where only a short exposure is needed, or if you have a sitter who can keep still, it will improve the picture very much if you use orthochromatic plates and a ray filter.

With regard to the development of orthochromatic plates, no difference need be made except that they should be more carefully guarded from light than other plates. As they are sensitive to yellow, only a deep ruby light should be used in the dark room. Tank development by formula is perhaps the safest method, but they can be developed in a dish in the old way, if care is taken to keep the dish covered most of the time.

No trouble will be experienced in obtaining supplies of orthochromatic plates or films. All the well-known plate makers quote them in various speeds and in all sizes, and the widely used Kodak NC film is orthochromatic. The only extra expense is the initial outlay for the ray filter, but this is not a very serious item. The price of a Kodak Color Screen is from 50 cents to $1, according to size. It is advisable always to use the screen that is adapted by the makers for use with their plates. For Kodak films it is best to use a Kodak screen or a Cramer screen with Cramer plates, but any screen will give better results than no screen with any orthochromatic plates or films. If you use a screen, you must use orthochromatic plates or films; it will not do any good to use one with ordinary plates. The screens can be obtained in various degrees of intensity. Cramer screens, for instance, are made in three tints, requiring respectively twice, three times, and five times the exposure. The deeper the screen, and the longer the exposure, the more complete will be the correction of tones. For general hand camera work, the screen which doubles the exposure will perhaps be most suitable, though the three-times screen is better when conditions are favorable for giving so much more time. With rapid plates, a rapid lens, and a focal-plane shutter, a three-times screen can easily be used for snap-shots.

Photographers who are interested in landscape work should give these plates a trial, if they do not already use them. They will be sure to find great improvement in their work, the relative tones in the subject will be more correctly rendered, and their pictures will more nearly attain to the artist's idea of what a landscape picture ought to be.

A NEW SYSTEM OF COLOR PHOTOGRAPHY

F. C. BEACH

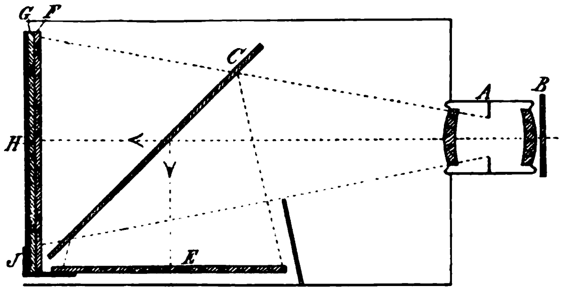
SINCE the introduction of the Lumière autochrome color-sensitive plate within the last three years, upon which a composite color picture is made at one operation direct in the camera, quite an impetus has been given to improvements in this line, which will overcome one of the drawbacks of the French process; that is, the difficulty of securing duplicate color photographs except by successive exposures in the camera.

The new system we are about to describe has this particular feature that duplicate color pictures can be obtained *ad libitum* from the first negative obtained in the camera. It has been perfected and simplified by Mr. Frederick E. Ives of New York, and is unique in the way certain apparent difficulties are overcome.

The process is based on the merging of the three primary colors, — red, blue, and green. It is not quite as simple in operation as the autochrome process, but possesses the following definite advantages over that. The sensitive plates used keep better, developing successfully when several months old, and cost but half as much as the autochrome plates; the positive transparencies are made by a separate process, from the finished negatives, thus permitting the making of any number of duplicates; the transparencies transmit many times as much light as autochromes, and are quite free from granularity, so that they are perfectly adapted for use along with ordinary lantern slides in the lantern, also for use in the stereoscope; the process also permits of local treatment to modify the colors when and where desired, with extraordinary facility, — a feature which will be greatly appreciated by the artistic amateur. A special camera is required to make the triple negatives, but it is very simple and can be used without change for all ordinary kinds of photography with plates or films.

When it is desired to make a set of triple negatives for color photography, a "trichromatic plate pack" consisting of three sensitized plates held together as one, is used in the special plate holder instead of a single plate, and is so disposed in the camera after the plate holder has been inserted as to produce by one exposure three negatives, representing the three primary colors. The "plate pack" consists of a red sensitive and a green sensitive plate with the sensitive or film surfaces in contact, held between a backing card and a blue sensitive plate which is hinged thereto by a strip of gummed paper. When the pack is inserted in the plate holder, the red and green sensitive plates are retained by ledges, and are pressed in close contact, film against film, by a spring on the lid; but the blue sensitive plate is made slightly shorter, so that it falls or passes outward between the ledges. When the opaque slide of the plate holder is withdrawn, in preparing for an exposure, this plate falls outward into the camera, resting on the bottom of the latter in a horizontal position at right angles to the other plates. After this a yellow screen plate is dropped down from the camera roof by means of a lever on the exterior, as shown in the diagram, and the usual compensating screen is placed over the lens tube. Then the exposure, which is said to be about as long as that required for an autochrome plate, is made by means of the lens shutter.

Referring to the diagram, A is the lens having a compensating color screen B attached to it, which equalizes the exposure for the three images and perfects the color selection. C is a hinged transparent yellow glass reflector. E is the dry plate sensitive to the blue rays, lying in a horizontal position, which receives the image reflected downward by the yellow glass reflector C. As



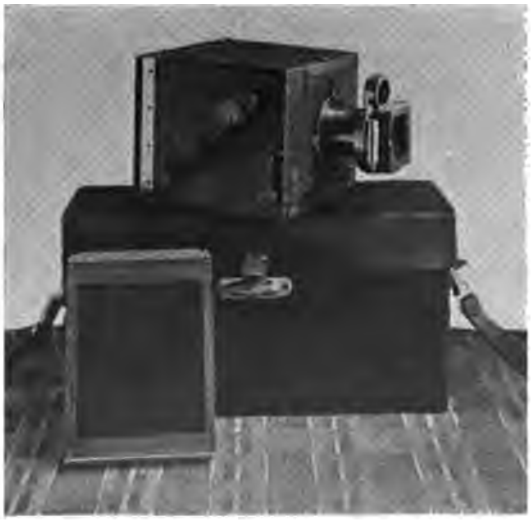
the lens image passes also through the reflector C only the green and red rays act on the vertical sensitized plates, respectively, F and G. The film of F is in contact with the film of G, hence the light acts first on the back side of the film F; but some of it passes through the film and impresses the front side of the film on the red sensitive plate G.

After exposure the reflector C is turned upward in contact with the roof of the camera by a knob on the outside, then the plate E is placed in a vertical position against the other plates by means of another lever on the outside (shown in the engraving), and the slide of the plate holder is inserted. H and J represent an opaque backing card and a flexible hinge attached to the plate E, the plate F being loose, but held clamped between H and E when the pack is closed.

The plate holder is inserted at the back of the camera under a ground glass frame held by springs in the usual way. Focusing is done by moving the lens inward or outward through a tube on the front. It is evident from this arrangement that the image on each plate must be exactly the same, but that two of them will be "reversed," one by reflection, and the other because made through the glass side of the plate. In making positive duplicates on the film it is only necessary to reverse the position of the print from the positive positioned negatives to make all three positive prints coincide when bound together between two glass plates to form one harmonious transparent colored picture. The collodion positive film is so thin that accurate registration of the three films is not affected.

The exposed plates are developed by time development as a unit, held in a special rack, being separated like the leaves of a book in a tank filled with an amidol developer. The resulting negatives show no color, but contain the color record in black and white, and when finished are available at any time for making natural color transparencies.

To make the transparent color prints, the three negatives are placed side by side in a printing frame, a sheet of collodion bearing a coating of bichromated fish glue is laid collodion side down on the negatives, the back of frame put in, and then exposure made to light through the negatives — about one minute in clearest sunlight. The exposed sheet is then removed from the frame, clamped coated side up on a glass, and developed by washing with water under a tap for a few seconds. This gives three graduated low-relief prints which are perfectly transparent, but they are then cut apart and immersed in separate red, blue, and green dye baths for a few minutes, the dyes to be furnished in the proper colors, then rinsed off dried, and superposed in register to make the complete natural color transparency. The same negatives are available for color prints on paper, but the processes for making color prints on paper are not yet nearly so simple and satisfactory as the transparency process.



The appearance of the camera and plate holder and the case for carrying the apparatus is shown in the illustration. It is quite compact and simple. Examples of these pictures, both in the form of lantern slides and stereoscopic transparencies, have been shown us and possess a most pleasing brilliancy and transparency in coloring just as one would like to see.

EDITORIAL COMMENT.

NEW QUARTERS

THE growth of American Photography in the last two or three years has been so rapid that we have been continually cramped for space. We have enlarged our office quarters several times, but have never been able to get the elbow-room we needed. On the first of July, therefore, we shall move from our present address to the Pope Building, 221 Columbus Avenue, Boston. Here we shall have adequate space, occupying the entire front of the top floor, eighty feet in width, and extending back some forty feet. In the early fall we hope to be able to invite our friends to view our new offices, on which occasion we shall have some interesting photographs on exhibition.

OUR ADVERTISERS

As a result of certain statements made in the editorial pages of some of our contemporaries, we feel it desirable to assure our readers of two things: In the first place, we believe that every firm advertising in our pages is honest and fair in its dealings, even though it may not advertise in every photographic magazine. In the second place, there are reputable firms in the photographic trade who do not advertise with us or any photographic magazine. The implication by any trade journal that all firms which do not advertise with it are unworthy of confidence, an implication unfortunately made far too frequently by the weaker class papers in more than one field, does not appeal to us as fair dealing, and reputable publishers usually do not care to descend to such tactics. Our readers may buy in confidence from our advertisers, and we will stand behind them in any complaint of obviously unfair dealing.

AN EXPERT ON LIGHTING

One of our German contemporaries has recently held a symposium on methods of work. The well-known Photo-Secessionist, Frank Eugene, who is now a resident of Munich, gave perhaps the most epigrammatic answer. It is somewhat difficult to translate from the original German, but a free rendering is as follows: "I work anywhere; it is all the same to me whether in the studio, in the garden, on a church tower, in the pantry, or in the cellar. I require only the necessary light and my worthy camera with its French aplanat, which once upon a time cost $10. North or south light, top light, side light, and bottom light are all enormously useful. A glass house, or the so-called top-light studio, I regard as a famous place in which to propagate tropical plants."

Mr. Eugene's work speaks for itself. He is a master of tone values, as may be seen from the ten examples of his work, published in the current number of *Camera Work*. His words are, therefore, deserving of weight, even though they merely confirm the testimony of many of our best professionals, who do first-class work without any special arrangements for lighting.

MUTUAL CRITICISM

OUR London letter speaks of the value of mutual criticism to photographers, especially to those who can meet for the purpose. Our friends, the Photo-Pictorialists of Buffalo, have long practiced this sort of friendly aid, and ascribe much of their progress to it. Another recent example of its value is the exhibition of the Boston Camera Club, elsewhere reviewed. The meetings for mutual criticism had much to do with the success of the exhibition. Judgment was passed on prints, the better ones were chosen for enlargement or working up, changes were suggested, etc., and the pain and mortification of seeing cherished prints rejected by the hanging committee was in most cases avoided. Our "Portfolio" is a proof to us that our readers appreciate criticism, and a little later we hope to make arrangements whereby readers near Boston who desire to progress may come together for mutual help. Our new offices will afford conveniences for meetings, and we hope to hear from those who would like to meet with us in the fall.

THE LETTERS WE GET

OUR competition this month called for pictures of children, so it is not surprising that our mail has contained references to them. Yet we have discovered more sides to our relation to children than we had dreamed of. For instance, one subscriber writes: "Kindly send me another copy of the June, 1910, issue of AMERICAN PHOTOGRAPHY. Mulcahy's baby tore mine up and I do not want my file broken." Another reader who has just learned to know the magazine writes in part as follows: —

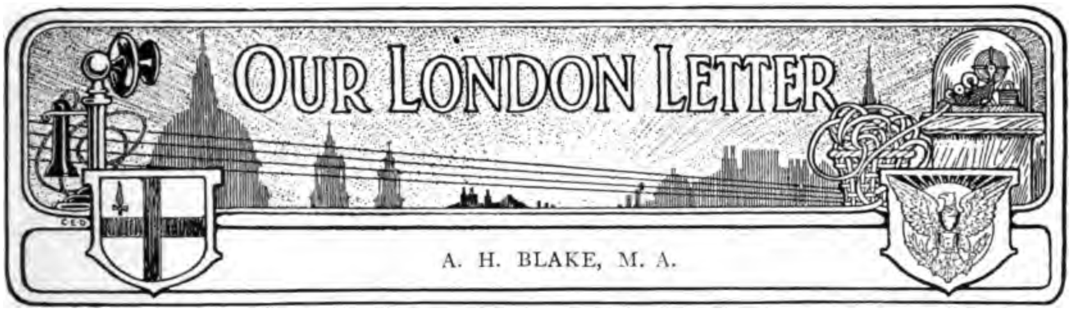
"I will have you send me the AMERICAN PHOTOGRAPHY in September and I will send you a money order from the post-office here. I have a baby eighteen months old and this is his second summer, so I must look out for him so as to pull him through, as he is teething. I do not care to take the books until after summer is over as I might neglect him, forgetting my charge, and being wrapped up and lost in your books, as I am in love with your books."

We feel happy that we have made a magazine so interesting that even mother-love must struggle with its attractions. Evidently the children cry for it, but we would not have them die for it.

OUR COMPETITION

THE awards this month are as follows: —

First prize, "Teddy's Tea," by H. F. Perkins; second prize, "Good-by Dolly," by W. W. Roberts; third prize, "A Helping Hand," by W. F. Exner. Honorable mention: "A Letter to Daddy," by Charles H. Flood; "Eloise," by Edward H. Weston; "Will You take Our Picture?" by Miss May Williamson; "Waifs," by Harry D. Williar; "The Little Mother," by Mary P. Kingsbury; "Baby," by Charles W. Darrell; "Reverie," by Mrs. Brooking; "A Disappointed Boy," by John F. Jones; "Alice," by J. H. Berkemann; "The Young Artist," by T. W. Kilmer; "Good-night," by The Nelson Studio; "Sister's Maid," by George H. Seip; "Swinging," by J. L. Anderson; "Exploring," by Clarence F. Thornton; "Me, for the Hay," J. R. Weaver; "Fishing," by Clarence Gwillam; "Tired Out," by C. H. Pease; "Baby Bert," by M. M. Knowles; "Good Morning," by F. E. Crum; "Helen," by E. Austin Snyder; "Cherub," by J. C. Mulford; "Stuck," by M. A. Yauch. The prize pictures will be reproduced next month, having been crowded out at the last moment by unavoidable changes in make-up necessitated by the insertion of Mr. Beach's article on a new method of color photography.



OUR LONDON LETTER

A. H. BLAKE, M. A.

THE Japan-British Exhibition is exciting naturally a great deal of attention in London and offering to the public the finest opportunity for interest and instruction that we have ever had in any of these exhibitions. It is good to know that the Photographic Section has no reason to be ashamed, for it can hold its own in quality and attractiveness with the rest of the exhibits. The Photographic Section is divided into three parts: the British Pictorial Loan Collection, the Scientific Section, and the Trade and Professional Exhibits. As to the Pictorial Section, which I suppose will be of most interest to my readers, I may say that it is an exceptionally fine collection of representative British work and high in its standard of excellence. Practically every foremost man is well represented, and the oncoming men are not excluded. The word "representative" is rather relative. Two hundred exhibits from two hundred camera men would in a sense be representative, but certainly such a collection would not be a representative collection of the best English pictorial work. The principle followed here has been to show as much as possible of the very best without excluding the men who are to be the leaders of the future. My space will not permit me to deal with the pictures in detail, but as new work was not sought or asked for, the majority of the works would be known at least by name to American readers. The work of decorating the gallery was entrusted to Mr. George Walton, and the results are excellent. The pictures hang upon a background of cream white material of somewhat open mesh, divided into panels by gold picture molding, while above runs a frieze of dark green serge. Exigencies of space and the high standard aimed at only allowed of some one hundred and twenty pictures being hung.

In the Scientific Section we have a collection of photographs by the leading naturalists and investigators of the day in this country. Many of them are of exceptional interest. Such names as Martin Duncan, Douglas English, the Keartons, Oliver Pike, are as well known almost with you as with us.

The Trade Section has stalls by most of the leading manufacturers in this country, and in addition a series of exhibits from some of the Photographic Societies of what they consider the best pictures of their best workers. As we are anticipating the pleasure of a visit from many Americans this summer, I may add for their benefit that though in 1908 the position of the British Pictorial Exhibit was so remote and difficult to find that few even of those who sought it discovered it, the reverse will be the case this year, for its position is an important and prominent one. On entering the Court of Honor, keep to the right of the lake and enter the first door on your right hand, and you will find yourself in the Pictorial Section, the Scientific and Trade Sections opening out of it.

"ACADEMY NOTES" ON THE WORK OF W. H. PORTERFIELD

A kindly correspondent from your side (I wish it happened more often) has sent me a copy of a journal called *Academy Notes* containing an excellent account of the work of W. H. Porterfield. To us over here it is of very great interest, since the aims, work, and ideals of that enthusiastic circle interest us exceedingly, and the more we know about them the better we are pleased. The writer tells us that Porterfield took to the camera as a relaxation from a sedentary occupation, and soon found that it could be used not only with scientific accuracy and esthetic falsity, but also to depict with more or less completeness the character of Nature as he saw her. His aim, we are told, has been to reproduce some phase of nature as he saw it, or more often as he imagined it to be. The great feature of Porterfield's work is a large directness, a bigness of effect, from which all accessories, to say nothing of inharmonious materials, have been removed. It is this quality of largeness and strength that speaks from every print of his. The writer draws special attention to his skill in spacing and his love of beauty in line. He is strongest in low-toned effects. Two illustrations accompany the article, both of the Albright Gallery, and strike a new note as to subject, though the treatment is entirely in the Porterfield manner. We shall look forward to seeing the work of Porterfield and his fellows in the London Salon of Photography this year.

MEETINGS FOR CRITICISM OF WORK

It may interest my readers to know (for the idea is an excellent one) that there are existing in London meetings of photographers solely for the purpose of offering each other mutual criticism and help in work. To some of these meetings painters are welcomed, whilst others are restricted to photographers alone; but in both cases it is understood that a perfectly honest opinion without fear or favor shall be expressed, and if possible some constructive criticism added to help the author in his endeavor to improve his subject. These gatherings are generally of an elastic and bohemian character, but strict attention is given to the matter in hand, and the men are in earnest. Here, it seems to me, we have a distinct advance on the portfolio club idea, which has done and is doing so much good in this country. The written word often seems so much harder and more offensive than the same word said, with the manner of saying it and the after explanations. It is possible, also, for the author to state his aims and objects, and often to remove adverse criticisms founded on misapprehension of his purpose. It is customary to bring prints or positives in various stages of completion, pilot prints in P.O.P., positives from untouched negatives, the enlarged negative without betterment, and the same after being worked upon. Here, again, is an improvement on the folio, to which it is customary to send only the print so far finished that to alter it to any great extent would imply the beginning of the work all over again. It is most helpful to have expert opinion at each stage in the evolution of a picture. Good as portfolios are, and useful as they have been, it would seem that where it is possible for a band of workers to meet together at intervals and discuss work in detail, we have the more excellent way.

THE LONDON CAMERA CLUB

By the time this letter is published, if the proposed date of opening be adhered to, the London Camera Club will have opened its doors. An inaugural banquet was held at the Café Monico a few days ago, at which most of the leading photographers in London were present. It was a conspicuous success and augured well for the future of the club. Sir Henry Trueman Wood was in the chair, and both Mr. Reginald Craigie and Dr. Evershed met with an enthusiastic reception when they described the satisfactory condition of the club, as it was felt that it was due to their determination and energy that the success of the project has been assured. Visitors from America this summer should make a point of seeing the club, and no doubt leading photographers who are coming from the States will be hospitably received by members of their acquaintance. There will be a full-sized billiard table, reading and smoking rooms, enlarging and dark rooms, while light refreshments can at all times be had. Dinners will be served, at a special table, to members of the club at an adjoining hotel. I have no authority for saying so, but I feel morally certain that temporary membership of well-known photographers from abroad will be easily arranged.

PROFESSIONAL NOTES.

DID you ever get your money's worth out of a National Convention? Surely, or you wouldn't come the second time.

This year you will get more than your money's worth in the School of Photography alone, when such masters as M. J. Steffins, Frank Scott Clark, Julius Strauss, and other prominent men in the profession will operate and produce the final results for your consideration. The majority will get experience out of these demonstrations in lighting, posing, and finishing that it would be impossible to buy. Now, what you want to know *will* be there; if you don't find it, *holler*. The convention is for you and for your information.

The convention building is far superior to anything heretofore secured. Lecture Hall, School of Photography, and Manufacturers and Dealers are all located on the main floor, where all the latest designs in mounts, improvements in cameras, lenses, and printing papers will be cheerfully shown; here will be a gathering of men who know all there is to know at this time, and it is up to you if you don't find out.

The exhibition hall is ideal in every respect, lighted by overhead light, and all pictures will be hung on the vision line.

The first meeting and exhibition of work by the Federated Women Photographers of America, a Series of Practical Lectures and Talks on Art and Photography by eminent men of the country.

An exhibition of the latest inventions of the year, a $100 prize being offered for the most practical idea.

Second session of the Congress of Photography with delegates present from all the Affiliated State Associations.

Entertainment. — The local entertainment committee has decided upon the following entertainments for the convention: —

Tuesday evening: Grand reception given to the Executive Committee at the Hotel Pfister. Music, refreshments.

Wednesday morning: Coaching party for the ladies.

Wednesday evening: Theatre party, have secured the entire house.

Thursday evening: Entertainment at Ravine Park, with no end of fun for everybody.

Friday afternoon: Steamboat excursion on Lake Michigan.

Now dig and get out of the convention all there is in it; make notes of the ideas, materials, and processes, for such are the men that make conventions, and the men who make conventions more successful.

J. H. C. EVANOFF,
Sec'ry P. A. of A.

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MAY 1 the members of the Photographers' Association of America received a statement for 1910 dues. With it was a request that same be paid in advance of the convention. Many complied with this request, others did not. To members who have not responded to this call from your treasurer and to photographers who are not members of the P. A. of A., these lines are particularly addressed.

The treasurer asks as a personal favor that dues be paid NOW. It will assist him materially with his work convention week, and it will be a convenience to those who attend.

The "Association Annual" will soon be ready for distribution. The 1910 number will be a handsome edition, cleverly edited, compiled, and printed, containing instructive and interesting articles by some of the most successful photographers on how to secure and hold business, — a topic of vital interest to every professional worker. The numerous illustrations are excellent reproductions of some of the best pictures of the year. It is a number of the "Annual" you will preserve. Please remember that this year the "Annual" will be sent only to those who pay dues for 1910. If you have not remitted, do so at once. Your official receipt, membership button and a copy of the "Annual" will be sent to you by return mail.

A few words concerning the Milwaukee convention.

There will be a three days' session of the School of Photography, showing on Friday finished prints from negatives made earlier in the week. In addition to the corps of regular instructors, Commodore Steffins of Chicago has promised to make pictures for us from the taking of the order to the delivery of the finished prints, in a model studio, equipped entirely with artificial light. He will be assisted by some of the best workers in the country.

Our picture exhibit will eclipse anything of the kind ever attempted, both in quality and quantity, and the best feature of this department is the ideal exhibition room at our disposal. All prints on a line and a perfect light for every print.

An unusual number of manufacturers and dealers have contracted for exhibition space, and this means photographers will have the opportunity of selecting and buying the latest and best productions of the manufacturer.

The $100 prize for the most practical invention of the year will bring out a large number of entries, and these will be demonstrated throughout the week.

The lecturers secured for this convention are men who have good practical topics, and who can present them in a way that will interest and instruct you. Do not miss these talks.

The second session of the Congress of Photography which convenes in conjunction with the convention, will have representatives present from practically all the live minor associations of the country. This organization is the one that will accomplish much for the fraternity. Give it your influence.

The first meeting of the women photographers will be in session at the same place and time. In fact this is an affiliated organization. Lady photographers should join this band of serious workers and secure the benefits accruing from such association.

The matter of entertainment was left largely with the photographers and dealers of Milwaukee and they have promised so much entertainment that the board could scarcely find a place on the program for all they had planned, but we are going to have a full week of instruction, pleasure, and good fellowship.

If you are a member of the association, pay your dues; if not, fill out the attached membership blank and mail with the fee to treasurer Dozer, and he will send you a membership button and the "Annual." Look over the program, send three prints for the exhibition, then come to Milwaukee for the week of July 11. Not a bad stunt to close up the studio and bring the help with you.

L. A. DOZER,
Treasurer.

L. A. Dozer, Treasurer P. A. of A.
Bucyrus, Ohio.

Dear Sir. — I hereby apply for membership in the Photographers' Association of America. Enclosed find $3 for initiation fee and $2 for one year's dues.*

Name ....
Street ....
City ....
State ....

(If check is sent send 10 cents for collection)

*If you are a member of any State Association affiliated with the P. A. of A. under the new constitution, only the $2 yearly dues are called for, provided you show receipt from your State Treasurer.

SOCIETY NEWS.

The Annual Exhibition of the Boston Camera Club, as noted in our last issue, was opened on May 10, and consisted of seventy pictures, prizes being awarded in three classes as follows: —

Landscapes. — First prize, "The Old Mill Pond," F. A. Saunderson; second prize, "Autumn Sunset," Charles O. Dexter; third prize, "Across the Marsh," Herman Corbett. Portraits. — First prize, "Portrait of Mrs. K.," Gurdon R. Fisher; second prize, "Grace," Mrs. Maude P. Kimball; third prize, "Miss R.," Miss Elsie Whittemore. Genre. — First prize, "Pictures in the Flames," Edward W. Boyd; second prize, "Le Cygne," Howard S. Adams; third prize, "Spring Sunshine," Miss S. J. Eddy. Marine. — First prize, "Off Nahant," Ernest H. Washburn; second prize, "A Scottish Headland," Frank Roy Fraprie; third prize, "Sunset at Hampton Roads," William L. Manson.

It is interesting to note that of the twelve prize-winning pictures, five were by members of the Postal Photographic Club, which has seven members residing in Boston and its suburbs. As has been noted previously, the club was divided into two camps, the red and the blue. Eight of the twelve prizes were awarded to the blue camp, which by general concensus of opinion had the better exhibit.

We are inclined to believe that a jury of smaller dimensions would have awarded the prizes somewhat differently from the way they went. They were awarded by vote of the club, and in the limited time given for study, it is apparent that some pictures of importance were overlooked, especially in the landscape class, which was very large. In a way the judging reflects the preference of the majority of the members of the club for sharp detail and story telling effect in pictures.

In the marine class there were but seven pictures, and we think there can be little question of the approximate fairness of the awards. Of the four pictures not honored, none has any particular claim to pictorial merit. The genre class was next in magnitude, and while all of the pictures to which awards were made, were meritorious, there are others in this class which deserve especial mention. "The Fire Fighters," by Edward W. Boyd, is an excellent genre study, full of life and action. It contains many figures, but all in satisfactory poses, and well represents the bustle and confusion of such a scene. "Comrades," by Charles O. Bosworth, is an interesting study of a hunter with his dog. "Beyond Control," by Alexander Murray, is another interesting fire scene. Miss Elsie Whittemore exhibits a three-fold picture, entitled "Curiosity," depicting the adventures of a baby and the mirror, which is full of life and interest. "A Halt on the Judean Hills," by Anson W. Titus, is an extremely pictorial scene of desert life, depicting an Arab resting while his horse stands idly by. Miss Sarah J. Eddy has two interesting outdoor costume studies, one of which obtained third prize in this class, although the other to our mind is a more interesting and satisfactory picture, its handling of drapery being especially delightful.

In the portrait class, besides the pictures which were awarded prizes, we find a number of excellent studies. Mr. Fisher's first prize picture is a delightful bit of home portraiture, full of quality and truth. Mrs. Kimball's "Grace" was reproduced in our March, 1910, number. Miss Whittemore's portrait is also distinguished by beautiful quality as well as a graceful pose. Of the other noteworthy portraits, we are reproducing Mr. Dana's "Wreathed Smiles." "Portrait of Miss W," by Charles Peabody, in the opinion of many members of the club should have been awarded a prize. It is an unusual standing pose, and full of delightful tonal quality. "Portrait of a Woman," by Miss Eleanor L. Pitman, has an unusual and attractive lighting.

In the landscape class, it seems to us that the awards are farthest from what an artist's jury would have selected. Mr. Saunderson's first prize picture, which we reproduce, shows an eminently pictorial spot, most adequately pictured. The second prize, "Autumn Sunset," by Charles O. Dexter, which we have also reproduced, in its lines and treatment fully carries out the effect desired. The third prize, "Across the Marsh," by Herman Corbett, to our mind does not contain enough material to justify the award. Although the technical problem is beautifully solved, the composition is not satisfactory. It would have been desirable to award more prizes in this class, as "Early Morning Mist," by C. F. Clarke, "The Birks of Edzell," by Frank Roy Fraprie, "Winter Moonlight," by Lowell T. Clapp, "Summer," Walter K. Menns, "A Landscape," Walter K. Menns, "Autumn," Mrs. W. K. Menns, are all pictures of great beauty, both of scene and rendering. "Summer," by Mr. Menns, which we have reproduced, is full of beautiful atmospheric quality, and is almost perfect in composition. "Winter Moonlight," by Lowell T. Clapp, is a most unusual landscape, — a night scene taken without the aid of artificial light, and portraying a scene familiar to everybody who has ever traveled a country road at night. "Early Morning Mist," by C. F. Clarke, is an early morning scene with most delightful atmospheric quality and pleasing composition. "A Landscape," by Walter K. Menns, and "Autumn," by Mrs. Menns, are almost alike in composition and especially strong in their portrayal of atmospheric effect.

All in all, the club and its members are to be congratulated on the showing made this year, which has set up a new standard, both in quality and number of pictures exhibited, and promises well for future exhibits.

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THE annual meeting of the American Federation of Photographic Societies was held on Saturday, May 7, 1910, at the Museum of Art, Toledo, Ohio. The meeting was well attended and the delegates were highly pleased with the success of the Sixth Salon and the conduct of the affairs of the Federation during the past year. All expenses were met and a substantial balance remains in the hands of the treasurer.

It was decided to eliminate all foreign exhibits from the Seventh Salon and make it purely American, as the name implies. The number of frames hung will not exceed two hundred, and the standard will be raised to meet the standards of the highest art critics.

Desiring the support of all photographic journals equally, it was decided not to designate any one publication as the official organ. Hereafter all work submitted for the jury must be sent framed, except from points west of Denver. The Hanging Committee will frame western prints economically at the cost of the entrant.

The following officers were reelected: George W. Stevens, president; John F. Jones, vice-president; George W. Beatty, treasurer; C. C. Taylor, secretary (all of Toledo, Ohio). William A. Rheinheimer, historian (St. Louis, Mo.).

President Stevens will deliver an address during the National Convention of the Professional Photographers' Association, at Milwaukee, in July, on the "Place of Photography in Art." Upon request fifty of the best prints from the Sixth Salon will be exhibited in the Convention Hall.

The following motion prevailed: That the thanks of the Federation be extended to the retiring and incoming officers, for the notable success they have made of the affairs of the Federation; and that we, collectively and individually, and for our clubs, pledge our continued and increased support to the end that the succeeding two years may be still more successful.

* * *

THE International Photographic Exhibition at Budapest, which was opened about the end of May, and occupies the whole of the Künstlerhaus, consists of nearly six thousand pictures, from all quarters of the earth. In all respects it is one of the most important photographic exhibitions ever got together. The collections from America, England, Austria, and France are much larger and better than those exhibited at Dresden last year. For the first time in the history of exhibitions, a really representative collection of English professional photographs has been gotten together. Holland, Switzerland, Denmark, Russia, Sweden, Norway, and Belgium have all sent well-selected, though not large exhibits. From the German empire nearly one thousand first-class pictures have been collected. The photographers of Hungary have worked for almost two years in order to make their own national collection the strongest in the exhibition. The most interesting part of this group is formed by a collection of one hundred pictures, gotten together by the National Association of Hungarian Amateur Photographers, the society which originated and arranged the exhibition. This collection of one hundred prints was exhibited in London not long since, and awakened great enthusiasm. The opening of the exhibition was arranged to take place later than was expected, and consequently we have not yet received details, which, however, we hope to publish in our next issue. The Grand Duke Joseph, the patron of the exhibition, opened it in person.

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THE Twentieth Annual Exhibition of the Department of Photography of the Brooklyn Institute of Arts and Sciences was held at the Art Rooms, 174 Montague Street, Brooklyn, from April 23 to April 30. One hundred and twenty-seven prints were received from twenty-six members.

The 1910 Exhibition was on the average better than that of 1909, though few prints stood out so prominently. The first award and the silver cup for group offered by the Exhibition Committee were justly awarded to William Elbert MacNaughtan, who entered six hand-coated platinum prints. Second and third awards for groups went to R. L. Randall and James E. Underhill, respectively. Their entries were gum platinums and gum prints. The jury asked permission to award seven honorable mentions, six being the number provided for. These went to James M. Edsall for his "Portrait, Mr. Westover" and "Channel Workers";

William T. Knox, "Harvest Days"; Horace E. Stout, "Frances"; W. R. Thompson, "Intermezzo," William H. Zerbe, "A Vista, Morningside Park," and Richard M. Coit, "Portrait."

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THE ninth annual exhibition of the Wilkes-Barre (formerly Wyoming Valley) Camera Club, May 9 to 16, was a successful one. For several years the number of accepted pictures has been limited and the Jury of Selection has always been such that from the standpoint of high standard this exhibition is equal to any in this country.

Sadakichi Hartmann (Sidney Allan) made the selection, and awarded ten certificates. L. T. Mead, Washington, D. C., was awarded two; Louis Mendel, Peterboro, Ontario, one; R. S. Kauffman, two; R. L. Litch, O. C. Hillard, W. H. Evans, G. W. Leach, Jr., S. H. Gilbert, one each.

Mr. Hartman gave an interesting talk and criticism, stating that there are at the present time three active photographic bodies in the United States, and he considered the Wilkes-Barre Club one of them.

Mr. Hartman ventured to say this club is too modest in exploiting the excellent work done by its members. Some do not exhibit outside of the club exhibitions.

The members pride themselves, however, that in the few attempts made for recognition they are very successful. Recent exhibitions record the fact that at Toronto, W. D. Brodhun was awarded a silver medal; at Montreal, W. H. Evans, First Award in the open class, H. C. Shepherd, Honorable Mention; at Jamestown, N. Y., R. S. Kauffman received two certificates out of eight; at the Philadelphia Wanamaker Exhibition R. S. Kauffman was awarded first in landscape and second in genre, also several honorable mentions. The club is well represented at the Capitol Camera Club Exhibition, Washington, D. C., and the current Salon. W. D. Brodhun and R. S. Kauffman were represented at the Linked Ring and Royal Exhibitions last winter.

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THE fifth annual meeting of the Trinidad Camera Club of Trinidad, Col., was held at the club rooms May 11. The old officers were reelected for the ensuing year: Walter Dearden, president; W. L. Crouch, vice-president; A. R. Allen, secretary-treasurer. The club starts the new year under the most favorable conditions, especially in the interest of the members, usually having a full attendance at every monthly meeting. The number of members is limited and membership in the club is at a premium.

The club has recently had the pleasure of seeing some fine lantern slides and albums from The Missouri Camera Club, The Photo-Pictorialists of Racine, Wis., and The Toledo Camera Club.

Mr. O. E. Aultman of the Trinidad Club has had some of his work accepted and hung in the Seventh Salon of the Toronto, Canada, Camera Club.

The Trinidad Club will be pleased to exchange slides and prints with other camera clubs, the usual rule of exchange to govern. Address the secretary. A. R. Allen, 383 W. Topeka Ave., Trinidad, Col.

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AT the annual meeting of the Photographic Section of Academy of Science and Art of Pittsburgh held on Tuesday evening, May 10, 1910, the following officers were elected to serve for the ensuing year: O. C. Reiter, president; R. D. Bruce, vice-president; Frank L. Miller, secretary-treasurer; Brady W. Stewart, lantern slide director; H. F. Walbridge, print director. Executive Committee: O. C. Reiter, Frank L. Miller, Norman S. Woolridge, Charles E. Minnemeyer, C. E. Postlethwaite.

Material for examination and books for review may be sent to Frank R. Fraprie, 6 Beacon Street, Boston, Mass. Any book reviewed will be supplied by our Boston office at the price mentioned.

LEXIKON FÜR PHOTOGRAPHIE UND REPRODUKTIONSTECHNIK. Von Professer G. H. Emmerich, Direktor der Lehr- und Versuchsanstalt für Photographie, Chemigraphie, Lichtdruck und Gravüre zu München. A. Hartleben's Verlag in Wien und Leipzig, 1910. Two volumes paper, $4.

The literature of photography has received a commendable addition in this most valuable work, produced by the well-known director of the Photographic Institute at Munich, Dr. Emmerich. He has had collaborators, a long list of well-known workers in photographic science, the names of many of whom are known the world over. The work covers the whole field of photography, and is arranged as a dictionary, both technical and biographical. Almost one thousand pages of closely printed text are needed to cover the subject. It would be impossible to list the whole field, but a few of the subjects taken at random are The Studio and Its Construction, The Bromide Processes, Photographic Optics, Electricity in Photography, Landscape Photographv, Instantaneous Photography, etc. In the scientific field we note articles on Telephotography, Balloon, Color, X-Ray, Legal, Astronomical, Meteorological, Botanical and Zoological Photography, Micro-photography, Moving Pictures. Further interesting articles are on the Law of Copyright, Photographic Instruction, History of Photography, Photographic Exhibitions, Blue Printing, Kinemetography, Photo-engraving, Photogravure, etc. Almost all living photographers of any note are given biographical notice. The work is illustrated by three hundred and sixty text illustrations, and thirty-six plates, many of which are double- and triple-fold sheets. The only work which has hitherto appeared, to which this can be compared, is Woodbury's Encyclopedic Dictionary, long unobtainable, and this new German encyclopedia should prove a most valuable reference book to every earnest student of photography.

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THE AGFA BOOK OF PHOTOGRAPHIC FORMULAE. Edited by George L. Barrows, published by the Berlin Aniline Works, 213-15 Water Street, New York, 1910. Price, 50 cents.

This book of formulas has been compiled by Mr. Barrows in order to enable the users of developing chemicals carefully and properly to prepare solutions, which will give satisfactory results with any make of plates or papers. The formulas have been collected from the various manufacturers, and may be relied upon, therefore, as suitable for the plates, papers, and films for which they are intended. The book is most thoroughly prepared and attractively arranged, and gives information which is indispensable to any photographer. In addition to the developing formulas, which include those for every variety of work of this nature, there is a selection of miscellaneous formulas, and a table of weights and measures. A number of pages are provided for memoranda and additional recipes. While the book was intended to be sold for 50 cents, the publishers advise us that they will furnish a copy to any of our readers who will send 10 cents in stamps or coin, and a label from any package of Agfa photographic chemicals.

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MODERN TELEPHOTOGRAPHY. By Capt. Owen Wheeler. New York, George Murphv, 1910. Price, 75 cents.

The author of this book is the editor of the *Telephoto Quarterly*, and one of the recognized authorities of the world on this subject, consequently it goes without saying that his book on the subject, while concise, is thorough and satisfying. It gives the information, and all the information, which is needful for satisfactory and successful photography. The illustrations are interesting, and of great merit, showing well the possibilities of working with modern lenses in this field.

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ANNUARIO 1910 DELLA FOTOGRAFIA. Dr. A. Rossi. II Corriere Fotografico, Milan, 1910. Price, 80 cents.

Although Italian photography has not made much impression on the world until recently, there is a growing interest in this subject, as in every other, in the now progressive peninsula. Several important photographic journals are published, and one of them produces this year-book, of which the second number is reviewed herewith. It contains some interesting original articles, one on lenses, one on hunting with the camera, one on physical development, and one on the beauties of nature. Then follow a series of tables, a list of camera clubs, and magazines, a review of new processes proposed in 1909, a list of important articles published in periodicals, and a review of photographic productions of European firms during the year. The appendix contains a list of all the photographic dealers in Italy.

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DAS LEBENDE LICHTBILD. Von F. Paul Liesegang. Leipzig, Ed. Liesegang's Verlag, 1910. Price, $1.

Owing to the great increase in the number of motion picture theaters in all civilized countries, there exists a widespread desire to know how such pictures are produced. This book is intended as a simple introduction to kineometography. It shows the construction of the motions, and discusses the various applications in theater, lecture, and scientific purposes. As the author is thoroughly experienced in motion-picture work, he has treated the subject adequately, and we can commend his work to all readers of German.

* * *

WITH THE CAMERA. — Notes from the Illinois College of Photography and the Bissell College of Photo-engraving, Effingham, Ill. The government of Guatemala, C. A., through its consul at New Orleans, has just placed a student, Mr. Georges Saenz, with the Bissell Colleges for a complete course in plain engraving and three-color work. On completing the course he will take charge of a bureau of engraving for his home government. Mr. Manzanilla of 1908 who was sent to learn the engraving work by the Mexican government has charge of a similar department in Yucatan. Mr. Clarence Weed, demonstrator for the Eastman Company, spent a day at the college last month demonstrating his company's products. He also gave a very interesting lecture in the evening at the College Camera

Club. An enormous new transformer has been installed at the Bissell College of Photo-engraving, to transform the powerful electric current used for the arc lights of the operating department. Mr. E. S. Magee, of Pittsburg, Pa., has returned to the college after a month's absence, and hopes to be able to finish his course without further interruption, his brother having kindly volunteered to stay home and tend the stock and the chickens and do the chores in addition to his job of mayoring the smoky burg.

* * *

WE are notified by J. F. Adams, 459 Washington Street, Buffalo, N. Y., that on June 1 his store was robbed of a number of Cooke, Zeiss, Goerz, Ross, and other lenses, Kodaks, Century, and Premo cameras. Any reader to whom such goods are offered at a suspiciously low price is requested to notify the police of his town and wire Mr. Adams at once.

* * *

HOW AND WHY IN PHOTOGRAPHY is the title of a useful and attractive booklet just issued by Messrs. Burroughs, Wellcome & Co. They advise us that they will supply a copy free to any of our readers who will address them at 35 West 33d Street, New York.

* * *

THE IMPERIAL HANDBOOK is an annual issued every year by the Imperial Dry Plate Co., and the issue for 1910 has just been received by the American agent, G. Gennert, New York and Chicago. The book is not theory, but actual facts collected from the experience of makers and users. One of the useful features is an article on errors in exposure and development, accompanied with nine negatives on tissue paper, showing the various possible variations in exposure and development. This feature should be of very great value to every amateur. Among the many other articles, all of which we have not space to list, are Winter Photography, Holiday Photography, Home Portraiture, Tank Development, Latitude, Common Faults in Negatives, etc. The book will be sent absolutely free to any of our readers who may write for it. Please mention AMERICAN PHOTOGRAPHY when writing.

* * *

THE J. M. HAMILTON CAMERA CO., Waterloo, Ia., are making a line of cameras which are excellent in finish and construction, as well as moderate in price. Among them is one for post-cards, making negatives which will completely cover the card, requiring no masks, — a great saving in time and labor. The firm will be glad to send its descriptive catalogue on request.

* * *

THE BAUSCH & LOMB OPTICAL CO., Rochester, N.Y., want every one interested in high-grade lenses to receive a copy of their new photographic catalogue. It is the handsomest one they have ever sent out, which is saying much, for their literature is all distinctly high class. The cover is simple, dignified, and artistic as that of a photographic lens catalogue should be. The book is carefully designed, well printed, and contains many interesting reproductions which illustrate the qualities of their lenses and accessory apparatus. There is much useful information, such as a glossary of photographic terms, tables showing angle of view, depth of focus, exposure and shutter speeds, which add greatly to its value.

It can be procured by writing the Bausch & Lomb Optical Co., mentioning AMERICAN PHOTOGRAPHY, or from dealers in photographic supplies.

* * *

WE show here a cut of the No. O Graphic Camera, made by the Folmer & Schwing Division, which was omitted in the make-up of Mr. Stiles' article. The cut shows the neat appearance and compactness of this excellent instrument, which has proved so popular ever since its introduction that the factory has not yet been able to catch up with the demand.

* * *

THE following letter from James A. Sinclair & Co., Ltd., Haymarket, London, S. W., to Elliott & Sons, Ltd., Barnet, the well-known plate makers, speaks for itself: — "14th March, 1910.

Dear Sirs, — We enclose herewith a print from negative taken in the Haymarket to-day by our Mr. Sinclair, and it will be of interest to your firm. The plate is from batch No. 2401, and was supplied for the Southern Cross Antarctic Expedition, which was fitted out by Sir George Newnes, Bart., in 1898. These plates were left in the Antarctic by Mr. Louis Bernacchi, F. R. G. S., and were found by him during the voyage of the "Discovery" under Captain Scott, R. N. These plates were handed to us by Mr. Bernacchi on the return of Captain Scott's expedition, and were mislaid until to-day, when we tried them with the enclosed results. Notwithstanding that they are twelve years old, and have made two journeys through the tropics, and been kept for a prolonged period in the Antarctic at a temperature sometimes as low as 40° F., all but the extreme edges are in perfect condition.

Yours faithfully,
per JAMES A. SINCLAIR & CO.
(Signed.) James A. Sinclair."

A NEW HOME FOR SCHERING & GLATZ. — After forty-three years of uninterrupted business in the same section of Maiden Lane, New York City, first at the corner of Maiden Lane and William Street (the site of the present Royal Building), subsequently at No. 52, at No. 55, and since 1898 at No. 58, the firm of Schering & Glatz announce their removal on July 1, to the five-story building at No. 150-152 Maiden Lane.

This building, which was acquired last year by the now sole proprietor of the firm, Mr. C. F. Stiefel, is at present being thoroughly remodeled, and upon completion will be entirely occupied by Schering & Glatz.

To our older readers, the Schering Chemical Works, of which Schering & Glatz are the sole U. S. representatives, will be best known as the original manufacturers of Pyro developer; while old and young, professionals and amateurs alike, who have not as yet become acquainted with the more recent photographic specialties of this progressive concern, are invited, when in the city, to view the enlarged photographic department of Schering & Glatz or to write for information.

* * *

FARGO, N. D., May 2, 1910.

TO THE TRADE: — We hereby wish to announce that we have this day purchased the entire stock and business formerly owned by the Multiscope & Film Co. of Fargo, N. D. We shall continue the business in the future the same as in the past, and our endeavor will be to make improvements wherever possible and give customers the same prompt and careful attention as has been accorded them in the past. Our Minneapolis office will, of course, remain the same as before; however, it will be of special benefit to the photographers in this territory to have their orders filled at our Fargo branch, and in this way receive their goods more promptly, and at a great saving of time and expense in transportation charges. Our experience in supplying the photographer with his needs is well known, and we can assure the trade that our line of goods will be kept fresh and up-to-date, and with our strictly ANTI-TRUST policy we will furnish you with the BEST of everything at the most reasonable prices. The Fargo office will remain under the management of Mr. E. W. Schultz. We thank you for the patronage and favors extended to our predecessors in Fargo, and trust that the same kindly feeling will continue through these changes. Soliciting a share of your business, and thanking you in advance for any orders you may favor us with, we are

Very truly yours,
NORTHERN PHOTO SUPPLY CO.

* * *

GEORGE MURPHY, INC., 57 East 9th Street, New York, have just issued their 1910–1911 complete catalogue. This is a veritable encyclopedia of photographic materials. Send 10 cents (for postage) with your name and address for one of these catalogues.

THE photographer who is looking for a first-class universal camera at a moderate price, fitted with an anastigmat lens and rapid shutter, is strongly advised to inspect the Sylvar camera offered by G. Gennert, New York and Chicago. We have recently had an opportunity of inspecting some speed photographs taken with this camera, and were much interested in the great rapidity, depth of focus, and excellent perspective produced with the between-lens shutter, with which this camera is fitted. The camera itself is very light, finely constructed with every possible movement for hand and stand work, has a long extension with an automatic arm to prevent the bellows sagging, and is, in appearance, very handsome. When closed it is so compact as to fit the coat pocket snugly, and is not more obtrusive than an ordinary cigar case. To supplement this, twelve plate holders can be carried in the opposite pocket without any inconvenience. One may thus go out equipped for anything that may come along, whether it be a dark interior or an automobile race, and gain admission to reserved enclosures without exciting suspicion of being a photographer. The price of the camera complete, with film pack adapter and plate holder, is only $60, and we are assured on reliable authority that many of the newspaper men in the larger cities are using this camera exclusively for their newspaper work, — a sufficient proof that the camera will do all and more than the manufacturers claim for it.

* * *

RALPH HARRIS & CO., 26 Bromfield Street, Boston, Mass., have taken over the American agency for the Euryplan anastigmat, manufactured in Germany by Schulze & Billerbeck. This is a lens of the latest and most luminous construction, and for its merits was awarded a silver medal at the Dresden exhibition last year. It is made in three series, working respectively at f. 6.8, f. 5.6, f. 4.5, and we can vouch for the fact that the work produced by it is of great excellence. Full information will be furnished on request by Messrs. Ralph Harris & Co.

* * *

THE 1910 Premo catalogue has reached us, as usual, a model piece of bookmaking, printed in two colors, excellently illustrated, and attractively decorated. It catalogues the entire list of Premo goods, and shows conclusively the advantages of the film pack system of operation. It may be had at all Kodak dealers, or will be sent on request.

* * *

THE 1910 Ansco catalogue proves that photography is a settled fact. It assumes that every one should be interested in photography, and proceeds to show the kinds of goods of which a choice is offered to intending purchasers. It lists shutters, cameras, films, papers, and chemicals. It can be had from any Ansco dealer, or will be mailed on request to any of our readers.

OUR PORTFOLIO.

Prints for criticism under this heading should be sent to Frank R. Fraprie, 6 Beacon Street, Boston, Mass. Only one by each reader can be criticized each month. Prints are not returned after criticism. An asterisk indicates that the print is reproduced.

*580. O. C. Gilles.—"The Book." This portrait is excellent in arrangement and execution. We are sorry that you saw fit to make the highest light the ribbon on the hat, as a little more light could, with advantage, have been directed on the face. The lighting is very subdued, and a little more brilliancy in the negative and print would have made a somewhat more pleasing result.

581. Theron Hayward. — "Cold Water Canyon." Of the two prints of the same subject, one on carbon and one on special gaslight paper, which you enclose, you could not hesitate in deciding as to which is better. The print on carbon paper is chalky and lacking in detail in all the high lights, and if it were printed a little deeper the shadows would be jet black. On the other hand, the special print, while still somewhat contrasty, gives a much more satisfactory impression of the scene. This woodland interior is rather too confused and crowded to make a wholly pleasing picture. A simple subject with fewer objects to catch the eye would make a more interesting photograph.

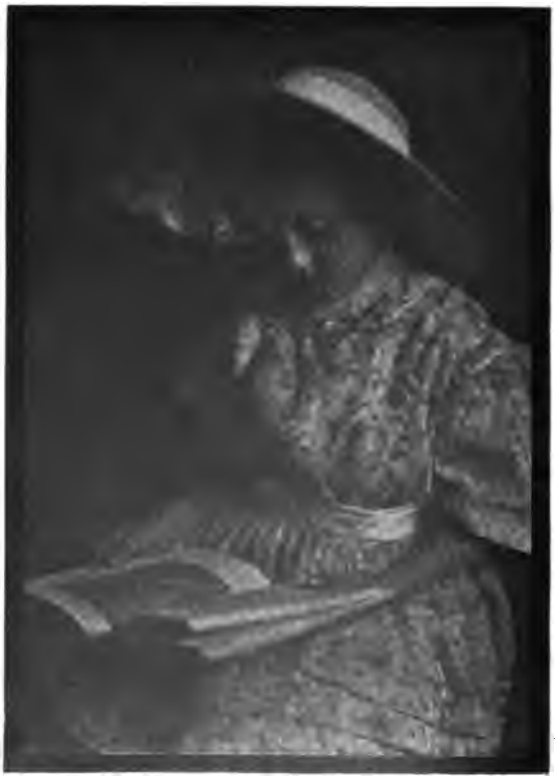
582. Clifford Kirk. — "Play Ball." We do not wholly admire the background which you are using. It is a little bit too fanciful and takes the attention away from the subject, while it has no natural relation to any possible sitter. You should have placed your camera a little lower to get in more space at the bottom, while at the top you have more than is necessary. The picture is apparently a little undertimed, resulting in chalkiness in the clothes.

583. J. Kreig. — "Raking the Fire." This picture of a fireman in front of a pair of boilers is well done, considering the difficulties of the subject. Ten seconds is a long time for a man to hold a pose before a red-hot fire, and hence we cannot complain if the right arm shows a little motion. It seems to us that the pose would have been slightly better if the arms had been directed forward toward the furnace, instead of backward.

584. L. T. Phillips. — "A Modern Madonna." This print would be improved by trimming. The expanse of white sky above the top of the fence does not help the picture in the least, and could all be cut off. This would involve sacrificing a little, say an inch from each end, leaving an upright panel. The exposure seems to be about right, but development was apparently pushed a little bit too far, judging from the lack of detail in the white dresses.

585. Arthur H. Goldsborough. — "Portrait." Your portrait shows an excellent command of your apparatus. The work in all details is as satisfactory as could be desired; not only are the technical details good, but the posing and expression are pleasing, making a portrait which should be prized by those interested. The only criticism we have is that there is no apparent reason for the hands being held behind the back. This may be a characteristic pose, but we should prefer to see the arms in front of the body rather than behind. Trimming ¼ inch or so from the top will also improve the print.

586. John Alexander. — "Indolence." In this print we find several defects. It was evidently taken in a cramped situation, so that your camera was too near the sitter. The consequence is that his legs and feet appear much too large and distorted in comparison with the body. In the second place, you have pointed your camera downward, the result being that your vertical lines are not parallel, but slope. In the third place, your print is too contrasty either through printing on too hard working a paper or through over-development of the negative.



580. THE BOOK O. C. GILLES

591. AMONG THE DAISIES GEO. A. NELSON

587. **W. F. Jungles.** — "A Pond." This is an excellent piece of technical work, and the arrangement seems to be about as good as you could expect at this spot. The picture would probably be more attractive if taken when the trees were in foliage. As the pig and the duck merely "happened to be present," perhaps you were not able to coax them to take up different positions, but the pig is rather near the edge of the picture, and would be better either out of it or farther in.

588. **W. H. Boyer.** — From every point we should say that the proper thing to do with this picture was to cut it in two. You can thereby make two small and interesting portraits, but the two figures, side by side, of the same importance, do not compose well. In a group of two, one of the figures should always be higher or lower, in front or behind the other. The exposure was not quite sufficient.

589. **R. D. Armstrong.** — "The Farmyard." This is an interesting record picture, but would be improved by cutting ¾ of an inch from the top, thereby reducing the amount of blank white sky. This bare sky and the heavy shadows are evidence of under-exposure and over-development.

590. **R. E. Herrick.** — The technical work on your unnamed print is good. We do not quite understand, however, why you have chosen this subject. The fallen log and the bare, straight tree trunk do not offer to the average observer anything of particular interest; but if you desired a record of this particular spot for some purpose you have done well.

*591. **Geo. A. Nelson.** — "Among the Daisies." This is an excellent print in every respect. The technical work could not be improved, and in arrangement the picture is very pleasing. The foreground, a field of flowers, is very pretty, and leads the eye up to the object of interest, — the woman plucking flowers in the middle distance. The background of mountains is also interesting, and the print possesses an excellent separation of planes.

592. **A. L. Castle.** — "In Great Grandmother's Dress." Your negative had far too much exposure, in consequence of which the development was prematurely stopped, and you have a thin, weak negative, which makes a dark, flat print. Proper exposure would have made this an attractive picture.

593. **E. C. Ames.** — "Long's Peak." In the early morning light you misjudged your exposure, and the result is a flat, weak print. The bank of clouds against the mountain is well pictured, but still the effect of dawn does not seem to us to be truthfully rendered.

594. **H. M. Brooks.** — The portrait of a lady reading a newspaper has too much light in the wrong place, that is, on the paper. The consequence is that one's attention is drawn to the cartoons there evident, instead of going to the face, the natural point of interest. If this had had more exposure, and the bottom light had been cut out, so as to keep the newspaper in shadow, this would have made a good portrait.

*595. **B. A. Poelker.** — Your print of the two children shows good exposure and technical work, and makes a very interesting group. We would prefer, however, to see this trimmed square and not in the oval shape which you have adopted, as the figures seem somewhat too large for the space in which they are displayed.

596. **L. A. Hudson.** — "Leo." We do not find it necessary to say very much as to the technical details of your work. You seem to have mastered these very thoroughly and the very full sheet on which you have submitted data proves sufficiently that you are well aware of the possible causes of failure, and able to profit from your own mistakes and experience. Of course, with as young a baby as this, almost any good picture is an achievement. At the same time, we would suggest that if the baby had not stretched his arm out so far it might have been better. The foreshortened hand is not particularly pleasing. Your reflector has also thrown a little too much light on the legs, which should not be so strongly illuminated. Otherwise we can say little which would help you.

597. **James D. Darrow.** — "Cousins." This is a good record, and there is little to say about it. The attitude of the young man is probably characteristic, but for preservation we would suppose he might prefer a little less careless attitude. The background also is a little dark, and if the figures had stood a little farther away from the rocks, they would have been somewhat clearer.

598. **K. L. Thompson.** — "The Old Home." This print is too contrasty, showing the result either of under-exposure and over-development or of printing on too contrasty a grade of paper. The house is crowded too near the edge of the picture. Local conditions may render this necessary, but if it were possible, we would suggest

595. B. A. POELKER

your swinging the camera so as to bring the house nearer the center of the print. If this is impossible, then photographing from the other direction should be more satisfactory.

*599. **Forman G. Hanna.** — "The Brook — Winter." We have nothing but praise for this print, in technique and arrangement. You could not have made a better picture, at this spot and time, and while you might possibly have found a more picturesque place in the neighborhood, this is an extremely pleasing print, and one that you may well be proud of.

600. **W. H. S.** — "Wool Freighter." This print shows the pure, white sky and the dense black shadows, which tell of forced development, usually due to under-exposure. A little more time and water in the developer, or a softer working developer, will produce you more satisfactory prints. This would be improved by printing with square corners and by cutting off ¾ of an inch from the foreground.

*601. **E. B. Collins.** — "Lois." This picture is in many respects pleasing and interesting. The pose is natural and unconstrained, and the little girl's attitude speaks of shrinking modesty. At the same time, there are evidently defects in the negative, which have rendered necessary considerable very obvious hand work. This and the fact that the print you sent was badly blistered operated against it in the competition. We would suggest that the light on the upper portion of the nightgown is considerably stronger than necessary.

602. **E. C. Way.** — "A Youthful Coquette." This is an interesting portrait of a cunning child. It is, however, very badly spaced on the print. About ¾ of an inch should be trimmed off the top and a little from the back, leaving rather more space in front of the head than behind it. The vignetting at the bottom is, to our minds, unpleasing, and you would have done far better had you left the print as it was taken. The dark mass of hair with nothing at the base to support it makes the composition very top-heavy.

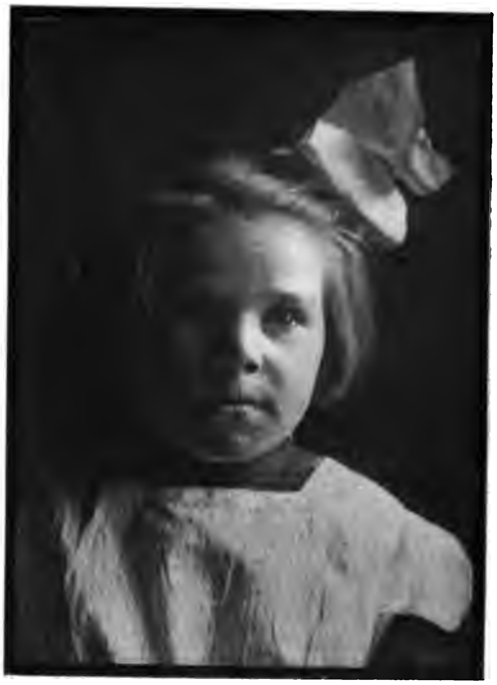
603. **Lorin H. Soper.** — "Contented." As far as the baby is concerned, this is a good picture; but the baby suffers from its surroundings, which are far too black. It would have been much better to have used a lighter background, instead of this jet black blanket. As the print now stands, it could be materially improved by trimming 1¼ inches from the top, ¾ of an inch from each side, and something from the bottom.

604. **Miss M. A. Connor.**—"Study—Child's Head. ' The pose and arrangement of the head are interesting, but the background against which it stands is very poor and confusing. Trim off ½ inch from the left and ¾ of an inch from the right, and the picture will be improved considerably; but we would advise you to try again, using a white sheet or other simple background.

605. **Joseph Bonanno.** — "Portrait Group." The exposure on this group, instead of being five seconds, should have been nearer twenty-five. Your figures would then have stood out against the background, instead of disappearing into a mass of gloom. The pyramidal arrangement is interesting, and with proper exposure and development would have made an interesting portrait group.

606. **Laban Wyatt.** — "The Farmyard." This print contains too many miscellaneous objects to be really a thing of beauty. The wagon, the lumber pile, and the sleeping hog fill up the foreground with a heterogeneous mass, which keeps the eye wandering to and fro, wondering why the picture was taken. The blurred fence pickets in the foreground show that you did not use due discretion in setting up your camera. The apple orchard in the background, in itself, might have made an interesting picture, but as you have focused on the extreme foreground, the trees are blurred, and do not convey any idea of their real beauty. Apparently you can make a good technical photograph if you want to, but should use more discretion in your choice of subjects.

607. **H. C. Shaw.** — Your little landscape has considerable atmospheric quality and rather pleasing arrangements. We would suggest, however, that you try to bring the interest more into the foreground, and effect this by trimming off the top of the print about ¾ of an inch above the line of the distant trees, and then taking the same amount from the bottom. This will make a horizontal panel of attractive composition, in which the eye is led by the line of the shore through the picture to the distance.



608. HELEN C. A. SWOYER

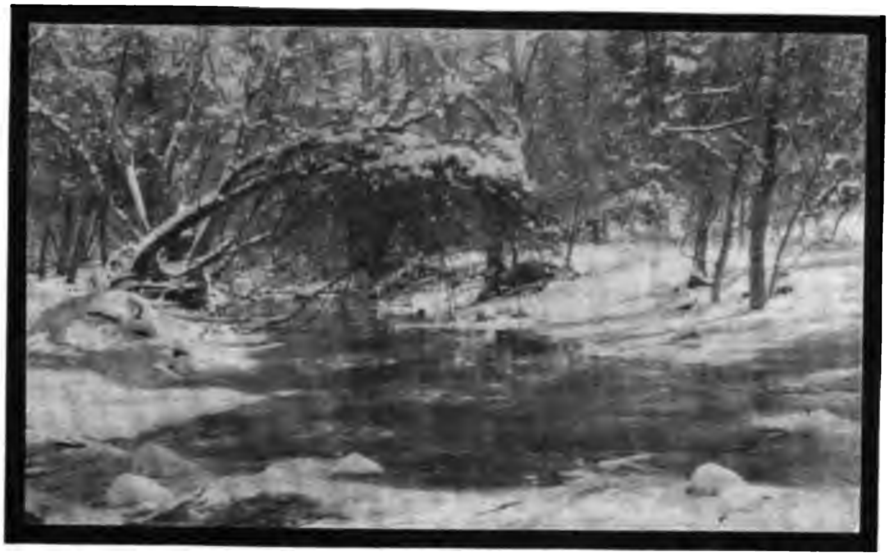
*608. **C. A. Swoyer.** — "Helen." The lighting in this child portrait is too contrasty, one side of the face being in full light and the other in deep shadow. A reflector on the shadow side would have softened this considerably and given you a better result. The exposure seems to be good, and the work above the average.

609. **A. T. Parker.** — The portrait of a baby is properly exposed, and a good snap-shot. Probably the picture would please the parents better, however, if the baby's mouth were closed, possibly a difficult thing to accomplish, but one which should always be sought for in photographing young children.

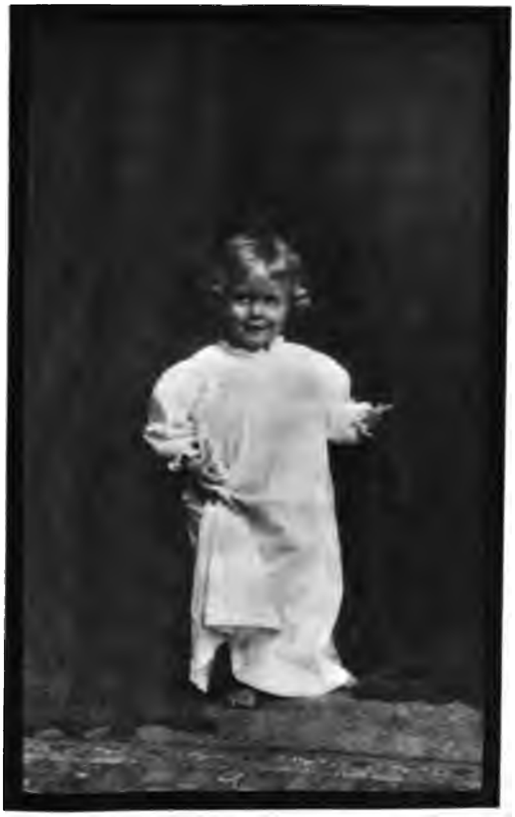
610. **Carl A. Anderson.** — While this post-card of farm machinery is probably the kind of print which pleases your customers, we would suggest that you should strive to get a little less contrasty pictures. Jet black shadows and pure white skies do not truthfully represent nature, and by using a little more water in the developer and a little less contrasty grade of paper, you can obtain a result which will be more harmonious and pleasing.

*611. **Fred E. Crum.** — "Good Morning." This charming little baby picture obtained honorable mention in our competition. It is a little lacking in details in the white gown, showing forced development. Possibly your exposure was a little bit less than the best. Trimming ¾ of an inch from the top of the print improves it much.

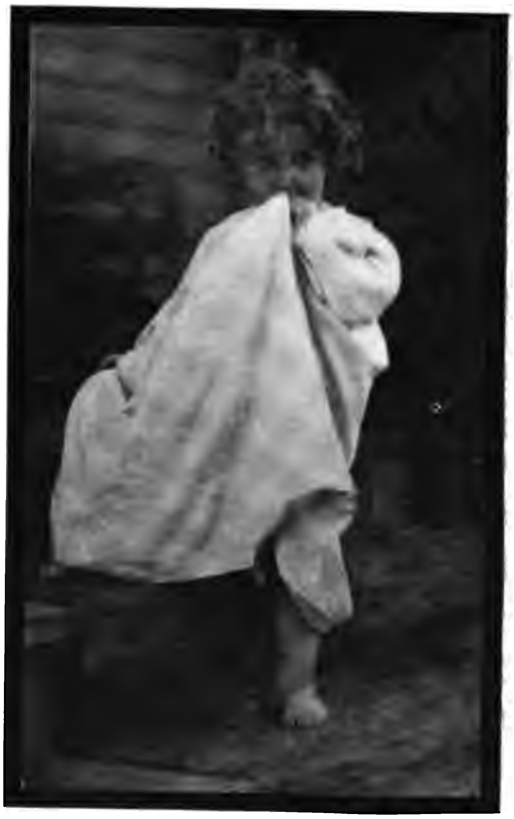
612. **Miss May Williamson.** — "Will You take Our Picture?" This is a most interesting group of children, well placed and with a good background. The light, however, came unfortunately, throwing patches of brilliant illumination here and there on faces and leaving other faces in dead shadow. The result is a distracting spottiness, which throws the accents in the wrong places as far as composition is concerned, dividing the group into two separated parts.



599. THE BROOK — WINTER FORMAN G. HANNA



611. GOOD MORNING FRED E. CRUM



601. LOIS E. B. COLLINS

613. J. Frank Curtis, M.D. — "At Home" is in idea a very pleasing picture, and if the execution were equal to the conception, would be a very attractive bit. It suffers, however, from the too common fault of chalkiness. All the white dresses are wholly lacking in detail, and the picture is hard where it should be soft. The arrangement of the two principal figures is pleasing, and carries out the spirit of the childish play most excellently. The group sitting on the porch, however, is too intent on the camera instead of on the action going on in front of them. A little more exposure would have given you a much more satisfactory picture.

614. **Mrs. H. E. Calderwood.** — "Out for a Lark." This suffers to an extreme degree from the prevalent fault of over-development. Probably you have a negative with clear glass shadows and absolutely opaque high lights, one which looks brilliant and sparkling to the eye, but which it is almost impossible to print satisfactorily. Your print is white paper almost all over, with a few jet black shadows here and there. Give more exposure, using a soft working developer, dilute so as to require long development, and print on a softer grade of gaslight paper.

615. **J. H. Stockton.** — "Water Babies." This is an excellent picture of child life, characteristic and truthful. As a composition, however, it suffers from two groups symmetrically spaced, and of almost equal importance. While there is a logical connection between them, this is not expressed in the lines of the picture, and, as a matter of fact, by dividing this in the middle, you would get two complete prints.

621. . M. COLE

616. **S. E. Green.** — "The Falls." Your print of a waterfall shows full exposure, rather too long to successfully stop the motion, but at the same time not more than was necessary to give detail in the shadows. A waterfall is a very difficult subject, and very few really successful pictures of them have ever been made. This fall in itself does not furnish material to make a particularly interesting picture, and we cannot say that we feel that you have rendered the water truthfully enough to make a first-class result.

617. **Amos J. Bellett.** — Your negative of a hunter is thin and not particularly well adapted to printing on a printing-out paper, but as there are few details in the shadows, a more contrasty paper would not give much improvement. Your print has an unpleasant yellow color all over, even on the white margins, probably due to toning in a combined bath, which was exhausted and gave sulphur tones. The arrangement is pleasing and interesting, and if you had a better negative and could make a better print, you would have an attractvei picture.

618. **C. W. Cramer.** — "The Spring." This print is far too chalky, much of which is due in this particular instance to under-printing. You took the paper from the printing-frame too soon, and longer time would have given you more satisfactory results. The yellow stains are apparently caused by not immersing the paper in the toning solution completely at first.

624 CHUMS LLOYD SHANNON

619. **H. S. Dunning.** — This unnamed print of a mill pond with a little village behind it, the whole with the background of high wooded hills, is interestingly arranged, and you might get a very attractive picture here. This print, however, is considerably out of focus, or else the camera was moved during the exposure, possibly both, because there seem to be two or three different kinds of blur present in various parts of the picture. The print is under-printed, and the toning process has removed some of the details which would be present if you had printed longer. On the whole, this is a very interesting picture, if properly printed.

620. **A. D. Rice, Jr.** — "Bridge over Salt Creek." As we have frequently stated, we do not think that an iron bridge, such as this, is a particularly interesting object to photograph. You did wisely

637. PRINTING BY LAMP LIGHT R. V. HEIB

in getting some distance from the bridge, thereby minimizing its importance in the landscape. Even so, the rectangular lines are hard and uncompromising, and take away from the interest of the scene. Otherwise, the arrangement of the print is good, and the technical work is excellent.

*621. M. Cole. — Your picture of an interior is well taken and much more interesting than the majority of such pictures which come to our attention. You have done very well in avoiding the halation in the windows, and have also successfully lighted the dark recesses of the corners. The carving and painting are well portrayed. These being your own work, as well as the photography, we must congratulate you on your artistic attainments.

622. Walter L. Brown. — "Reflections." This is a rather interesting picture, especially in the foreground. The lines of the trees, however, slope too much, and their reflections converging to them make rather unfortunate angles. The strong vertical on the left of the picture in relation with these angles makes a rather ungraceful triangle.

623. Oliver Frantz. — Your picture of the two children has several defects. In the first place you have got too near them with your camera, the result being both that they are out of focus and that you have cut off their feet. In addition, your picture is underexposed, and the result is chalky whites and dense black shadows.

*624. Lloyd Shannon. — "Chums." This is an excellent snap-shot, well exposed, well placed, and interesting. It seems to us, however, that if the two youngsters were interested in the dog, and not in some object at a distance, the picture would make a rather more pleasant impression on the beholder.

*625. Burdett Harrison. — "The Clay Molder." This is a very good photograph taken under difficult circumstances. The ill-lighted factory with its bright windows naturally shows an extreme range of contrast. You have a little halation about the windows and rather too dense shadows in the far corners, but these are probably unavoidable, and the interest is concentrated on the workman who is building his great cylinder out of clay. We do not think the second figure at the right helps in the composition, and would suggest trimming this off.

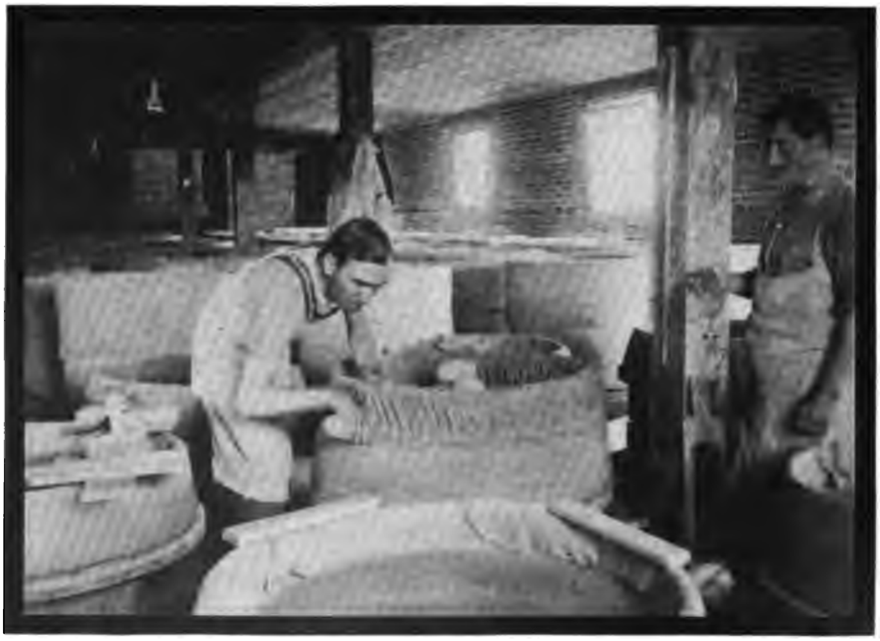
626. Erwin Marty. — Your picture of a number of men sitting on a wood pile, probably because taken on a clouded day, shows evidence of under-exposure. This, as usual, caused you to force the plate in development, with the result of making a contrasty negative, which does not truthfully reproduce the gradations of the original subject. More exposure and slower development, which would allow the half-tones to develop out, before the high lights were clogged up, would give you a more harmonious negative, which would make a better print.

627. G. Tushak. — "A Beauty." This is an interesting and graceful pose. The flowing hair is pleasantly arranged, and the only criticism we have to offer is that the line of the drapery across the chest is somewhat too horizontal. It either should have been higher on the shoulder or lower on the breast, so as to carry the lines from the lower portion of the picture up to the hair on the left-hand side. The folds of the drapery also run in the wrong direction, across the general line of motion of the draping. We do not like the strongly outlined light spot in the upper right-hand corner, and think this should be softened down.

628. L. E. Segers. — The print which you sent on metalotype paper is so faintly printed that we are unable to make a fair estimate of what this picture would look like on ordinary paper. We would suggest, however, that you trim off the telegraph pole at the left, and a little of the foreground, making the lines horizontal at the same time, and you will get a picture in which the attention is not distracted from the train.

629. M. L. McNeil. — "At Home Portrait." Your light in this picture seems to be entirely concentrated upon the sitter, leaving the background and surroundings entirely in darkness. While this undoubtedly brings out the principal object, it seems to us that you have carried the idea a little too far, the result being chalky high lights, contrasted with a full black background. The exposure, in our opinion, was a bit too short. As a minor point, we may note that the very brilliant high lights on the polished shoes should be touched up to prevent them from being so conspicuous.

630. W. G. Miller. — "Reading the Fashion Plate." This picture will be greatly improved by trimming off the whole of the pillow at the right and on a line with the right edge of the small upright picture at the left, thereby eliminating the jardiniere and leaving only a few fronds of the ferns swinging across the sitter's dress. In addition, the little picture above the sitter's head should



625. THE CLAY MOLDER BURDETT HARRISON

be trimmed out. This leaves nothing to take the attention away from the sitter, except the medallions in the wall paper. As these are so conspicuous, you would have done better had you used a plain background behind the sofa. The pose is natural, but the exposure might well have been a little more, to give slightly better values to the dress.

631. N. O. Slate. — "Mare Island Navy Yard." This is a good panoramic view and shows good technical work. The sole suggestion we have to make is that you should print it on softer working paper, thereby eliminating dense shadows in the foreground. It will then be an excellent record and well suited for its purpose of a commercial post-card.

632. C. R. Smith. — "Early Morning." This picture gives one a very satisfactory impression of the dawn, but at the same time we would suggest that a trifle more exposure would have made the shadows somewhat more transparent and the distance a trifle more clearly apparent. The planes of the distance would probably have been better separated and given more atmosphere to the picture. The arrangement is very good.

633. A. Schnutenhaus. — "Desolation." The photograph is well worthy of the name which you have given it, for a more barren spot it would be difficult to find. While the print is a good record, it seems to us that pictorially the clouds do not agree well with the name. The brilliant cumulus clouds which you have photographed are of the kind which give an impression of joy and brilliancy to the landscape, and to carry out the idea of the title, you should have taken this on a gloomy day, with low, heavy rain clouds hanging over the barren land. With this change, and the principal trees a little away from the center, you might make a strong picture.

634. Geo. H. Wender. — "Light and Smoke." This print, although in some respects very attractive, does not seem to us to fully carry out the idea of night. It is in a high key throughout. Undoubtedly in a misty, smoky atmosphere, such as this, the brilliant flames of the blast furnace would give much illumination, but it seems to us that there should be some strong, dark notes in the picture, and you have none blacker than a low middle tone, whereas your whites go almost to the upper end of the scale. If you had used the full range of tones you would get far more brightness in your flames and much more strength to your picture.

635. W. I. Sweet. — The print which you submit is overexposed. This leads to quick flashing up in the developer and blackening all over, so that the temptation is to take the negative out before it has obtained printing density, the result being full detail all over the picture, but a gray, flat print.

636. Roy J. Sawyer. — "Solitude." This print would be immensely improved by trimming off about 1 inch from the bottom, just above the first break in the stream, making a horizontal print with interesting lines and pleasing quality. It seems to us that the print is a trifle too diffused in focus for such a small print.

*637. R. V. Heib. — "Printing by Lamp Light." This is a very interesting flash-light and extremely well done. The photograph of the lighted lamp could not be better. The picture is story telling to a high degree, and you might possibly find sale for the negative for advertising purposes. The characters in the little story are attending strictly to business, and the pose of the boy, deeply interested in the process, is very good.

638. O. M. Ward. — "A Spring Snow." This print seems to have been made on old paper which had begun to decay on the edges, so that a dark streak extends in ¼ of an inch or so all around. Besides this, you have various finger-marks and scratches on the print which do not add to its attractiveness. The negative is far too contrasty, and shows evidence of considerable motion in the trees.

(*The Portfolio was closed on June* 4.)

RECENT PATENTS.

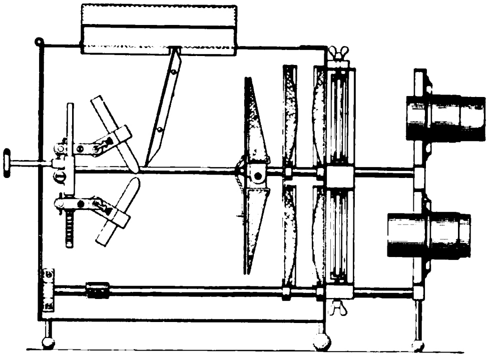
CHAS. B. DAWSON.

Abstracted by F. C. Beach. Copies of any of these patents may be obtained at 10 *cents each from Munn & Co., Patent Solicitors,* 361 *Broadway, New York City.*

March 29, 1910.

953,105. OPTICAL PROJECTING APPARATUS. Eberhard Schneider, New York, N. Y.

The object of the apparatus is to produce a dissolving effect with a single electric arc light. The single lamp is shown in the rear on the left. There are two objectives, one above the other, and two sets of condensers behind the lantern slide carriers. Located behind the condensers are wedge-shaped prisms, each of which carries the radiating rays of light from the lamp forward in a parallel direction to the condensers. Behind the prisms are hinged shades manipulated by a handle and lever on the exterior of the lantern. After the operator has inserted a slide in the carrier, say the upper one, the shade behind the upper prism is turned backward gradually, which allows the light from lamp to act on the prism and illuminate the picture. A slide is next put in the lower carrier and the shade back of the lower prism is withdrawn, allowing that picture to gradually appear on the screen.



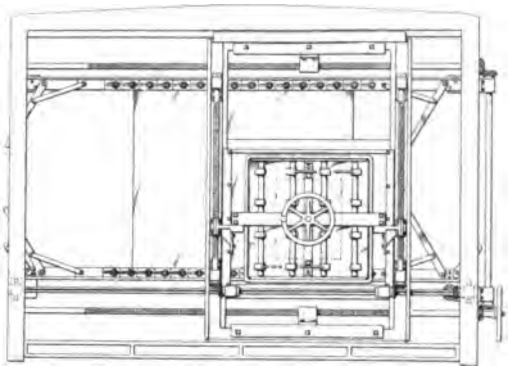
953,175. GELATIN FILM. Oswald Moh, Flörsheim, Germany, assignor to Defender Photo Supply Co., Rochester, N. Y.

The improvement consists in coating a sheet of paper or paper surface with a thin collodion film, and superimposing upon that film a film of gelatine.

Two sheets of paper thus coated are compressed together with the gelatine films in contact, enclosing the films between them. By removing one of the paper supports a compound film is obtained having an interior composed of gelatine between two exterior films of collodion, which it is stated is non-curlable, tough, and transparent. The supporting paper support may be removed, leaving the film transparent. The sensitized silver emulsion is flowed over the collodion exterior film. To make the collodion film adhere to the paper support, .01 per cent of sapo-medicatus or neutral soap is used. With the gelatine is mixed chromium salts for the purpose of making an insoluble film after drying. Also there is mixed with the gelatine an addition of medical soap previously dissolved in alcohol, which renders the film transparent. The inventor prefers to use the film on the paper support and then remove the latter after the completion of the operations.

***April* 5, 1910.**

954,291. PHOTOGRAPHIC PRINTING APPARATUS. WILLIAM C. HUEBNER, Buffalo, N. Y.

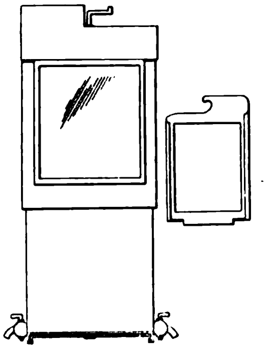


The object of this apparatus is to produce perfect ink printing surfaces upon sensitized surfaces in predetermined locations with great certainty and accuracy and in a very expeditious and inexpensive manner. One large outside, metal frame supports upper and lower longitudinal guide runways between which a sliding vertical frame works back and forth by upper and lower screw shafts manipulated by a hand wheel at the lower corner of the machine. Within the outside stationary frame and located in front of the moving frame is a very large sensitized metal printing plate. It is held in a vertical position between special stretching clamps very taut and smooth. In the moving inner frame opposite the back of the sensitized plate is a special plate, operated by a hand wheel, for pressing firmly against the rear of the metal sheet.

On the opposite side (sensitized side) of the metal plate is another frame in the moving frame which holds the negative in front of the plate and also a box containing electric lamp bulbs equally distributed around. There is a solid back, back of the lamps When the negative is adjusted to the right position it is pressed inward by the screw hand wheel against the sensitized plate. Then the hand wheel on the screw of plates on the opposite side of the plate is worked until the plate is firmly pressed against the negative. The electric light is turned on and an exposure made. To proceed for another exposure, pressure on the front and rear plates is released and the two frames, one on each side of the sensitized plate, are operated by the screw shafts until a new position is secured for producing a duplicate exposure impression, and so on, until the plate is filled with exposures. The exposed surface is then etched in the usual way and inked, from which prints can be made, for color and other work. The large sensitized plate is held between the movable exposure chamber and the latterly movable back. This particular patent is an improvement on other previous patents in the same line.

***April* 19, 1910.**

955,443. DAYLIGHT APPARATUS FOR PHOTOGRAPHIC PLATES, FILMS, AND THE LIKE. EDMUND H. SMART, London, England.

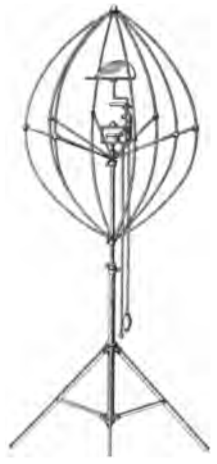


The lower part of the illustration is the tank holding the developing solution. A rotatable member on the bottom can be turned at right angles so as to form a base for holding the tank in a stable position. Faucets on each side at the bottom allow the solution to be run off. The upper member or cover slides over the tank telescopically and has two red non-actinic viewing windows. On the cover at the top at the left is a reservoir for introducing the developing solution.

The plate to be developed is placed in a peculiar shaped frame, shown in the smaller illustration, in a dark room, the hook on the upper part passing over and supported on another hook bar on the under side of the cover. The cover is then placed in position over the top of the window sliding portion, with hooked plate frames suspended as above described, and the whole slowly dropped down outside of the lower tank, which immerses the suspended plates into the developer inside. It may then be carried out in daylight and from time to time the outer case can be raised and the condition of the developed plate be examined through the non-actinic windows of glass or celluloid.

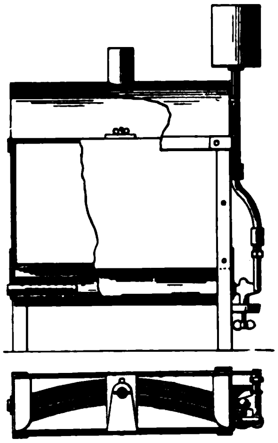
***April* 26, 1910.**

955,857. FLASH LAMP. JOHN O. ELLINGSON and ABRAHAM B. STOUT, Cambridge, Neb.



The folding stand supports a sliding vertical rod adjustable to any height which has a box-shaped lamp at its top end holding asbestos in which alcohol is placed. Above the lamp is a perforated plate, with a cone projecting above its center. The flame from the alcohol lamp below rises up in several jets through this plate. The charge of flash powder is placed on a hinged pan above the perforated plate. A projection on the rear of the pan acts as a trigger. Below the projection is an air-pump, connected to the bulb hanging below. In making an exposure the bulb is compressed which causes the piston of the pump to strike the projection on the flash-pan, which in falling to a vertical position dumps the flash powder evenly over the perforated plate. The numerous jets of the alcohol flame then ignite the powder evenly and produce a large flame of light. The plate above the flash-pan is to deflect the flame from rising too high. Over the wire globular frame is placed a bag of muslin, one portion light in color, the rest colored black to project the flash on the object. It is not necessary to be fire proof. The apparatus is foldable in small space.

956,319. PHOTOGRAPHIC PRINT-DRYING APPARATUS. John O. Ellingson, Cambridge, Neb.



A series of pairs of curved concavo convex metal plates, with wave-like separators between each pair, are clamped together between two curved end pieces. The print to be dried is laid between each pair of plates, the film side of print being on the convex portion so as to prevent curling when it is dried. The case holding the series of curved plates and prints has two open ends. The lower illustration shows this arrangement and the way the sides are held together. The case is then set in the frame of the apparatus over the gasoline heater, the lower open end being next to the heater. The gas heater heats an enclosing cylinder or drum. The heated air then rises through the casing along both sides of each print and passes out at the top through a chimney. Prints dried in this manner always remain flat and do not curl.

May 3, 1910.

956,567. SENSITIZED SURFACE OR FILM FOR PHOTOGRAPHIC PURPOSES. William H. Caldwell, Mallaig, Scotland.

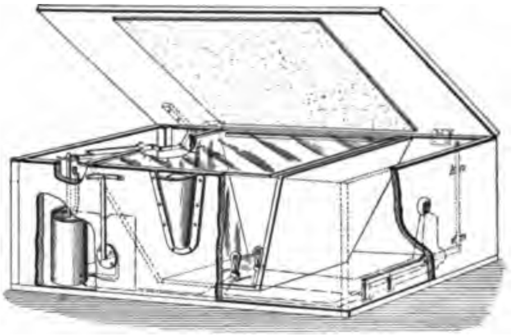
The sensitized surface consists of an emulsion formed of a silver haloid in the usual way or otherwise, to which is added the necessary amount of a suitable salt or compound of hydrazin, such as phosphoric acid (H_3PO_3). The salt is prepared by adding a solution of the acid to hydrazin hydrate (NH_2NH_3HO), using methyl orange as an indicator of the completion of the reaction. Sensitive surfaces thus described can be exposed in the camera for any time longer than the shortest exposure necessary, up to complete "printing out," or they can be exposed for a short time and subsequently treated with a suitable developer, such as an alkaline developer. The claims cover a new article of manufacture described as a sensitive photographic surface containing a silver salt and an ammonia derivative.

956,723. PROCESS FOR MOUNTING PHOTOGRAPHS, ENGRAVINGS, OR THE LIKE IN A DRY CONDITION. Julius Neubronner, Cronberg Taunns, Germany.

The inventor states that gutta-percha requires less heat to obtain a melting action when coated on paper than ordinary resin adhesives which crack and when dry require considerable pressure to stick fast on the mount. A sheet of paper is run through or dipped in a gutta-percha solution, becoming coated on each side. The sheet is laid over the mount and the rear side of the photograph on the gutta-percha sheet. Then the whole is compressed together with a hot iron. The first claim is as follows: **The process for adhesively mounting photographs and paper engravings, which consists in coating paper on both of its sides with a solution of gutta-percha, exposing the same to heat rays, placing the paper thus treated between a mount and the article to be mounted thereon, and then applying a hot iron over the same.**

***May* 10, 1910.**

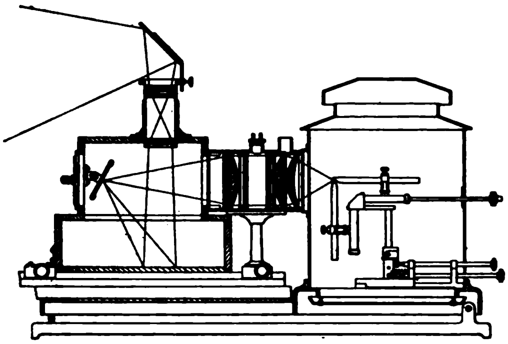
957,665. AUTOMATIC PHOTOGRAPHIC PRINTING MACHINE. George W. Ferguson, Springfield, Mo.



The object of the invention is to obtain uniform exposures adjustable to different negatives by the use of artificial light automatically turned on and off. It consists of a rectangular box provided with an actuating or hinged cover, the under side of which is lined with felting the same as the usual printing-frame pad. The center inner portion of the box is provided with vertically inclined polished metal sheets for the purpose of reflecting and diffusing the light from the incandescent lamps observed on the bottom. Over this compartment is a sheet of glass on which the negative to be printed from, is placed. The sensitized paper is laid on the negative, and the cover of the box closed down upon it. This operation through other devices automatically turns on the white light in the bottom and illuminates the negative for a predetermined time, making the proper exposure. When the cover is raised a non-actinic red incandescent lamp (pilot light) in the bottom is automatically lighted. On the interior right end of the casing observed in partly dotted and solid lines is a vertical sliding rod which is pivoted at its lower end with a horizontal switch lever. When the cover is opened this lever contacts the circuit leading to the red light. When the cover is closed this circuit is broken. The curved pocket-shaped cover on the exterior of the center of the front of the casing covers a sight opening into the box which also serves as a ventilator for the interior. The timing mechanism and switch for turning on the white electric lamps is shown at the left in a compartment adjoining the exposing section. A weighted piston descends within the metal cylinder, its velocity of descent being regulated by the escape of air through an aperture at the bottom; this is adjusted by a lever and rod observed just to the right of the cylinder with a pointer running over a scale on the outside on the same principle as the pneumatic cushion for shutters. Attached to the upper end of the piston rod is a V-shaped strip of metal which contacts with longer flat metal strip attached to the inside of the box. Part of it is shown in dotted lines. As the piston strip descends and contacts with the stationary strip the white lamps are lighted for exposure and remain so until the piston strip has passed below the stationary strip. When the cover of the box is open a pivoted lever with a fork at one end hooks under the contact piston strip and raises or holds up the piston ready for a second descent. The rear end of this lever is connected to a rod on the under side of the cover shown in dotted lines. As the cover is closed the forked end of the lever descends to the upper part of the pneumatic tube, while the rear end is drawn upward. This allows the piston to fall. It is unnecessary to describe the electric circuits. The box is wired so that current supply can be taken from a bracket or chandelier and connected to an inlet socket shown on the exterior of the right end. It appears to be a simple arrangement for obtaining uniform exposures and results.

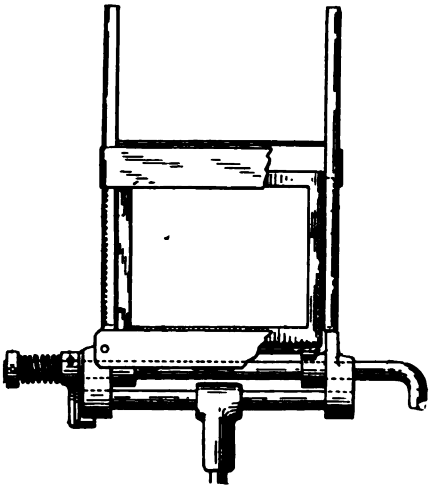
May 17, 1910.

957,899. PROJECTION APPARATUS. William L. Patterson, Rochester, N. Y. Assignor to Bausch & Lomb Co., of Rochester.



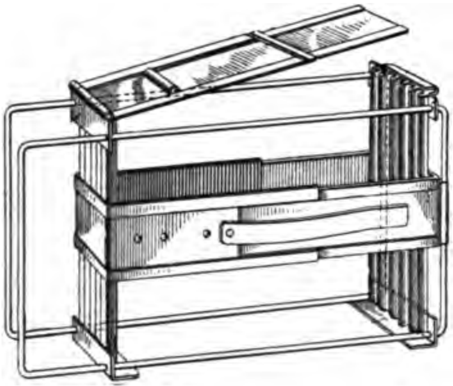
The apparatus is designed to project solid objects by reflected light, also lantern slides by direct light, as occasion requires. The illustration shows the arrangement or adjustment to project reflected images. To the right is the lantern body holding the electric arc lamp. In the center are the condensers and between them is the removable liquid cooling to tank to absorb the heat from the light passing through the first series of condensers. The light from the second condenser impinges upon an adjustable flat mirror pivoted in the inner forward end of the lens chamber which reflects the light downward upon the object to be projected, located on the bottom of the lower chamber directly under the vertical projection objectives fixed upon the top of the upper chamber. The image of the illuminated object placed on the bottom is thus carried upward through the objectives to a flat mirror attached to the lens tube at an angle and then projected forward to the vertical viewing screen. The upper lens chamber can be rotated horizontally so as to bring another objective in the side around in line with the condenser lens and project lantern slides, inserted in front of the condenser, upon the screen.

958,370. VIEW DISSOLVER FOR MAGIC LANTERNS. Otis C. Currie, Detroit, Mich.



The invention consists mainly in having a vertically sliding slide carrier in which the slide is inserted at the top and a hinged carrier that ordinarily lies in a horizontal position in which the slide is inserted at one end. This carrier is rotated at its axis upward to a vertical position in the path of light from the condenser by a shaft having a bent end. Each carrier is first loaded with a slide. Coincident with these is a semi-opaque flap or curtain which automatically drops and rises to intercept the lantern light while the change from one slide to the other is going on. The illustration shows the hinged carrier with slide turned up in a vertical position for projection. The device for intercepting the light is of peculiar construction unnecessary to describe.

958,500. ADJUSTABLE-RACK REVERSIBLE DEVELOPING TANK. Percy Y. Howe, Yonkers, N. Y.



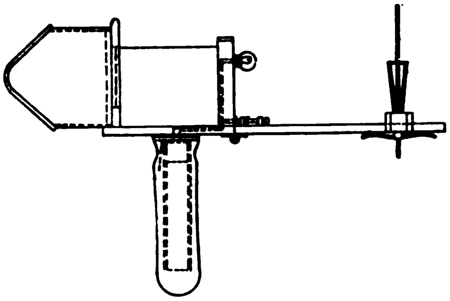
The novelty of this rack consists in its slidability when inserted in a developing tank along a wire frame in whatever position the tank is placed. The two corrugated heads slide through the rods and are locked in position on the sides with pins at different points, passing through the sides. The hinged adjustable top is then turned down and latches under a spring lip at the right of the view. The bunch of plates thus enclosed within the rack can be washed in the usual way, or be developed by tank development.

May 24, 1910.

959,249. MEANS FOR PRINTING PHOTOGRAPHS. Samuel A. Nielson, Madison, Wis.

The method is to first position the negative or film in the printing-frame, then to lay over the glass portion of the negative a non-actinic sheet with an aperture in it of suitable size for the picture to be printed, then overlaying a second sheet over the first with an opening larger than in the latter, so there will be a line margin around the print near its edges when done, and avoid the trimming of the print.

959,331. STEREOSCOPE. Albert E. Foote, Berlin, Germany.



The novelty in this invention consists in placing a small battery in the handle of the stereoscope with wires leading to a miniature Tungsten incandescent lamp secured at the end of the division for the purpose of illuminating the picture. A switch is provided for turning on the light at the time of viewing the picture.

Camera Notes

ORGAN OF THE
CAMERA CLUB OF NEW YORK
121 West 68th Street

JULY, 1910

Officers: *F. S. Hastings, President; F. Scott Gerrish, Vice-President; Frank M. Hale, Treasurer; Monroe W. Tingley, Secretary; James Stanley, Assistant Secretary.* Trustees: *Harry Coutant, W. H. Close, Willard P. Little, Frederick C. Beach, F. Benedict Herzog, J. Walter Righter, Maximilian Toch, Arnold Wood.*

THE CLUB PRINT EXHIBITION. — Considerable interest has been shown in the club print exhibit during the past two months, visitors being introduced frequently to inspect the excellent work. It is to be hoped the next exhibition will be even better, and members should reserve some of their good work for the future. There may be a winter exhibition of members' work.

LANTERN SLIDE EXHIBITIONS. — Two have been held on test nights, one on May 18 and the other on June 1, of sets of the American Lantern Slide Interchange. That of May 25 was the Boston Camera Club 1909 set and the Columbia Photographic Society of Philadelphia set, and on June 1 the 1909 set of the Photographic Club of Baltimore City and the Essex (Newark, N. J.) Camera Club. In the Baltimore set Mr. Percy M. Reese had a curious picture of a descent by parachute from a balloon entitled "Hanging by His Teeth," of a man with arms outstretched, showing the daring of such an operation. Mr. H. W. Williar had a few good flower pictures, No. 12, entitled "The Rosebuds," and No. 25, "Japan Iris." The delicacy of the shading in the latter was exceedingly well produced. Another artistic view of his was No. 22, of an "Old Bridge at Wethy's Mill," — a stone bridge, but very well arranged on the plate.

No. 33, "Defying the Law," by J. L. Tormey, is a picture of a policeman standing in front of a standing bear, with another bear lying on a porch above him watching intently the policeman's movements. Mr. Tormey also had another called "A Royal Group" of lions all well taken, showing good detail and effects, of four lions side by side looking intently ahead.

In the Newark Essex Club set was a very good slide entitled "At the Forge," by Floyd V. Harper. The quality was just right, the position of the blacksmith was most appropriate, while the red-hot horseshoe just being lifted from the fire indicated proper action. Another good slide with an ingenious title was that called "Taking Spring Medicine," by Mr. Knapp, representing one young man passing another a cup of cold water taken from a spring he was leaning over. Mr. Knapp also had an excellent study of "Seals." The child studies by Mr. John A. Hardy showed originality and were nicely modulated, accompanied by appropriate titles. Mr. Floyd Harper supplied a fine sunlight cloud picture, entitled "Sunburst," and Mr. Mead had an interesting view entitled "Twilight." Further exhibitions will be deferred until early in the fall. Members making good negatives during the summer are urged to prepare slides from them to be used in the fall slide exhibitions and in preparation for the 1911 Club Interchange by December.

BOARD MEETING. — The regular monthly meeting of the Board of Trustees was held on Tuesday evening, June 7. In the absence of the president and vice-president, Mr. F. Benedict Herzog was appointed to preside. The secretary reported an application for a non-resident membership. The application was approved and the new member was elected.

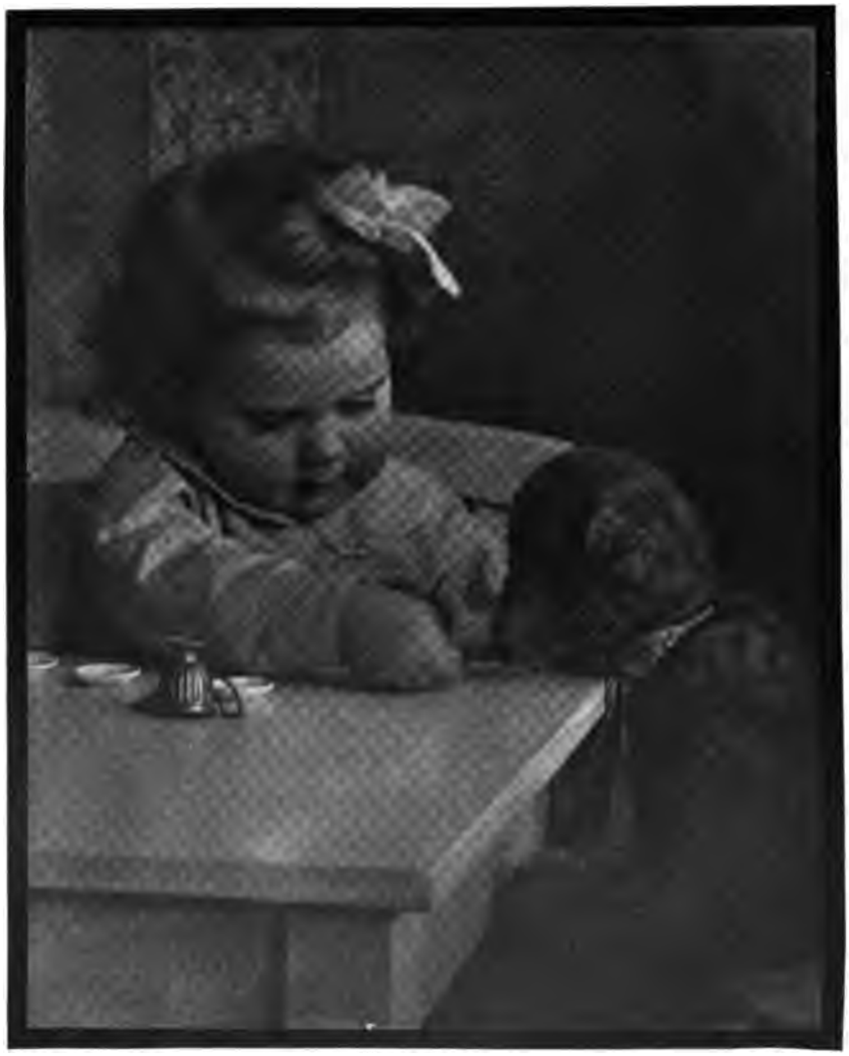
The mail vote ordered at the previous meeting was canvassed relative to the rule regarding the deprivation of professional members of the use of the workrooms on holidays and Sundays. It was found a majority of the members favored the enforcement of the rule. The treasurer's report indicated a good balance on hand, with all bills settled. The treasurer brought before the board the excessive waste of water by one or two members, and urged that something be done to stop it. The subject of fines was discussed, but no action was taken. The matter of improving the electric enlarging lantern was discussed, and the house committee was instructed to attend to it.

DUES. — Members are reminded that the semi-annual dues become payable July 1, and it is hoped prompt attention will be given to their settlement to facilitate the work of the treasurer. Those having overdue house accounts are especially asked to remember the treasurer.

THE DECORATION DAY ORANGE CAMERA CLUB OUTING. — Mr. R. L. Bracklow of our club was one who attended, and reports having had a good time.

AMERICAN PHOTOGRAPHY

Vol. IV. AUGUST, 1910 No. 8



TEDDY'S TEA H. F. PERKINS, BURLINGTON

First Prize, May Competition

LANDSCAPE SHAPES IN COMPOSITION: THEIR SELECTION AND MANAGEMENT

ELISA ANNE SARGENT

ASIDE from the interest in *genre* touches and the natural enthusiasm over radiant color in a landscape, there is the joy that the splendid sweep of stream, the uprearing of noble trees, or the buoyant motion of clouds bring to the lover of out-of-doors. To catch the spring of day over a meadow reach where gently tossing willows mark the trailing stream, to hold forever the delicate tracery of elm boughs against a luminous evening sky, to have in one's possession the reproduction of rich, rolling masses of gorgeous oaks under the still noontide of an October day — this is to be rich.

To create such scenes with pencil or brush or to gather them with the camera is a labor well worth while from many points of view. First — there is the personal growth into "things spiritual." Next — there is the ministration to the ones who cannot do either of these things. Last — there is always a demand for this kind of material for books, papers, or the walls of the city room whose narrow bounds confine a country heart.

The shapes of things — especially of landscape forms — are always attractive. The clouds as they float past, the curves and pebbly frets of the water's edge, the slopes of grass-clad hills, and especially the shapes of individual or extended masses of fine trees are never-failing sources of enjoyment. A fine form in nature is like a well-organized musical phrase in its power to stir the emotions. The adjustment of such forms within a space may well be compared to the harmonious arrangement of musical chords in its effect upon human sentiment, rousing memories, stimulating the imagination, and carrying the composer to inspiration — that field where the whole world is drawn together as kin.

What the landscape shapes are, how related, and where placed in the space, are the points to be considered in this article. To a painter, this work means selection, elimination, and combina-

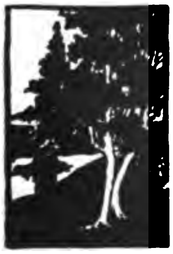


Fig. 1

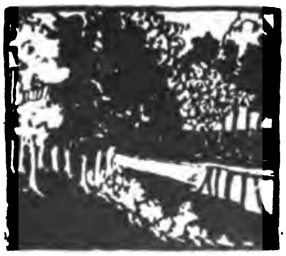


Fig. 2

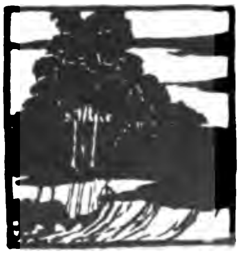


Fig. 3

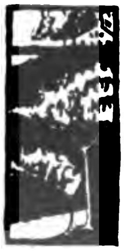


Fig. 4

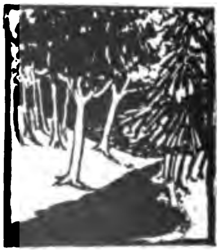
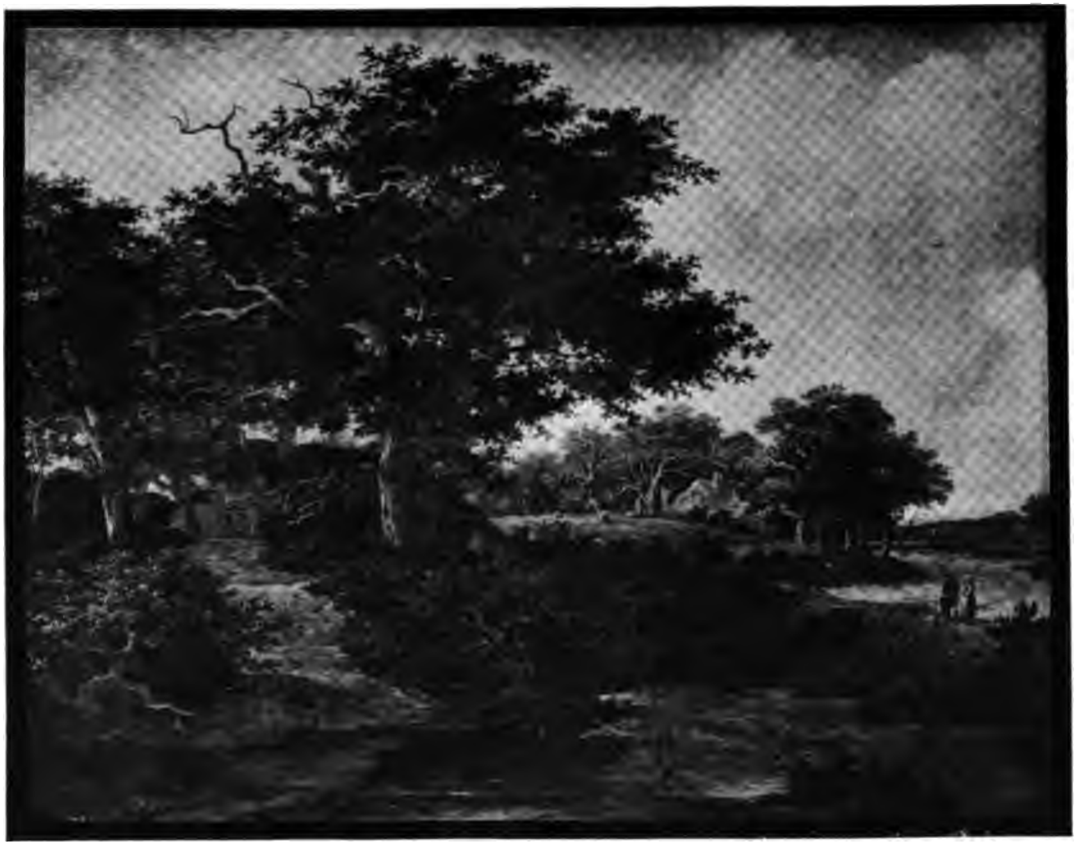


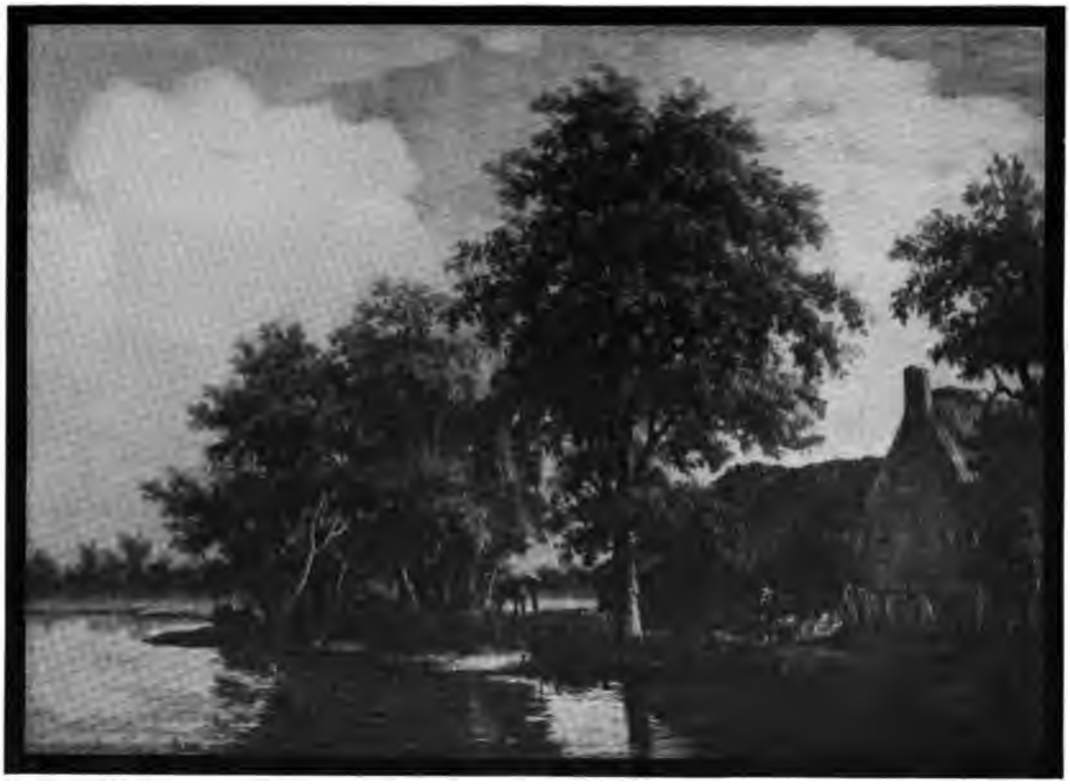
Fig. 5



LANDSCAPE (FIG. 6) HOBBEMA

tion to express an idea. To the photographer, it means selection of material and point of view, and, generally, the partition of the result into several forceful fractions or the merciless trimming away of distracting elements until a genuine single thought is reached. By a single thought is meant a series of related forms intimately associated as to idea and capable of analysis in terms of composition.

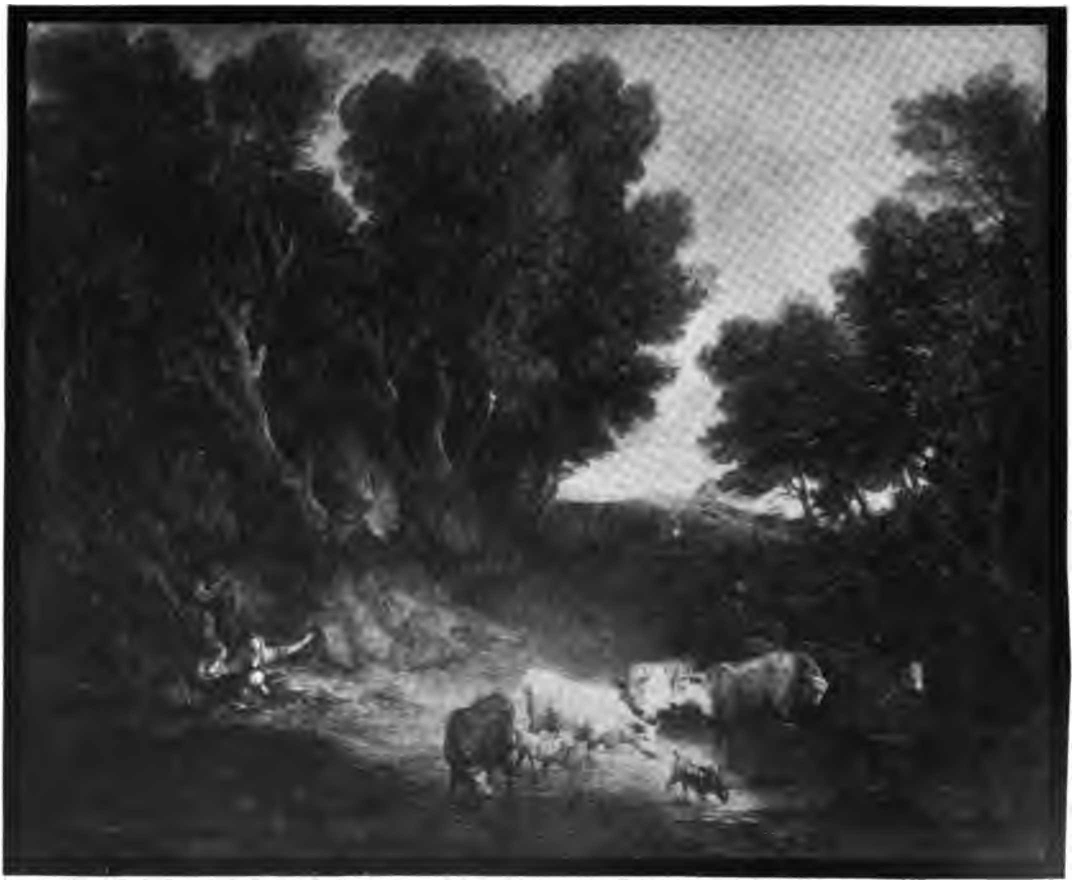
In the compositions and in the selections from the masters, used as illustrations in this article, nothing of the "grand style" of Claude Lorraine and his followers is shown. This is because such work belongs in a class by itself, is not much according to the spirit of the times, and, at best, is a magnificent display of draftsmanship and perspective rather than a consideration of the subtleties of composition. Instead, the compositions show the contrast of principal and subordinate, the interest in repetitions and other rhythmic relations, and varied and agreeable distributions of light and dark. The masters are Dutch, English, and French, and are of the seventeenth (Hobbema, Dutch), eighteenth (Gainsborough, English), and early (Constable, English) and later (Harpignies, French) nineteenth centuries. They are, with the possible exception of Harpignies, distinctly human instead of classic, and more or less inclined to "genre" touches as a consequence. These touches are so thoroughly subordinated, however, that they in no wise interfere with the consideration of pure landscape forms. Harpignies, the latest worker of the group, is a good exponent of the modern style in pure landscape, as the splendid forms of "Chemin à Penzé" show.



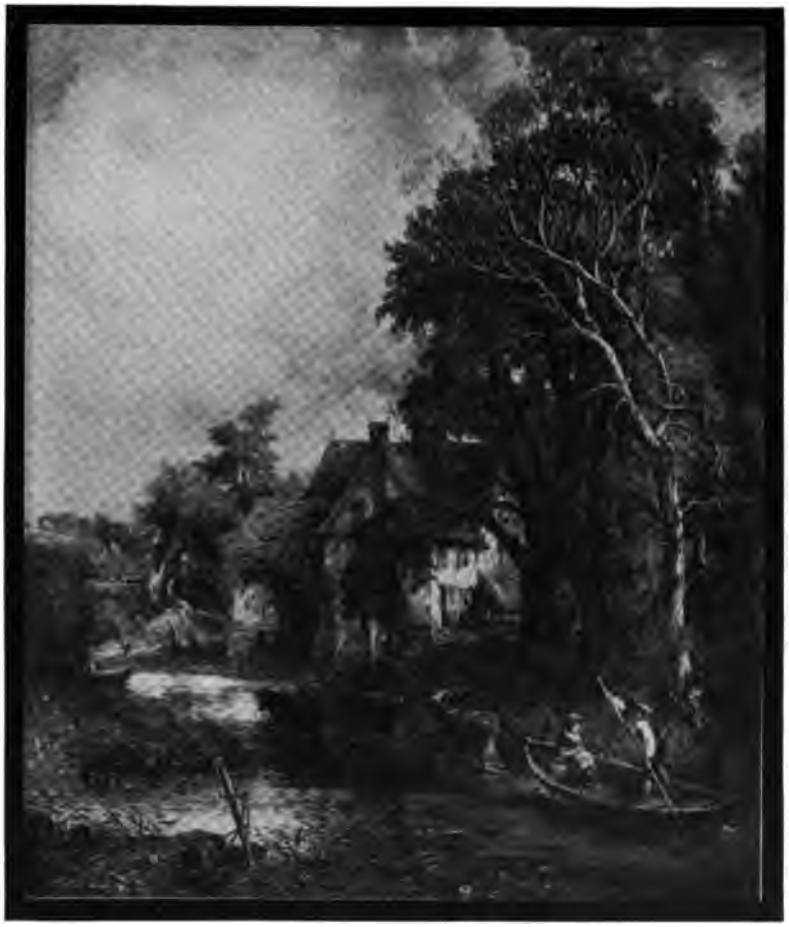
LANDSCAPE (FIG. 7) HOBBEMA

Beginning the descriptions of principles in the compositions with Fig. 1, we note the large tree mass with its varied drawing as a principal interest and the small tree and its reflection as subordinate. The light masses are cut by well-defined shapes and the dark foreground area is cut by the equally well-drawn light shapes which the trunks of the large tree form. Between these sharper contrasts lie the mingled masses of light and dark — the broken foliage of the large trees pierced by the sky and displaying here and there the light branches which support it. Figure 2 is a far more complex statement of similar things. The principal interest lies to one side of the space, and consists of dark, light, and mingled dark-and-light masses of trees and shrubs held by a strong, dark land area. The subordinate interest may be similarly described as it appears in its less prominent place on the opposite side of the space. The intermezzo is made by the reflection of this subordinate mass in the bright stream. The two interests, each triangular in shape, balance in this relation of principal and subordinate, but such is their unification that the slanting lines of light and dark in the entire scene move harmoniously across the enclosed space, while the area of most interesting drawing and the intensity of light and dark are well located in its center. This side to side balance of principal and subordinate interests is of frequent occurrence in landscape composition. Gainsborough's "Watering Place" (Fig. 8) and Harpignies' "Chemin à Penzé" (Fig. 10) both show this same balance of tree masses. In the Gainsborough there is the area of strong light at the center. In the Harpignies the light is scattered over various interesting bits of drawing around the "road," but intensified between the masses of trees as the trail passes out of sight toward the town. A splendid tree shape hovers over this point where, from the hilltop, Penzé is undoubtedly in full view. The moving clouds point downward toward this spot of the traveler's hope. These clouds not only accentuate the action of the trees, but they make strong opposing lines in the direction of the central idea of the picture — the "road."

A more unusual projection of the principal mass into the space is found in Fig. 3. This mass is composed of a rhythmic group of trees, trooping back over the hill. Its triangular shape is set almost in the middle of the space, thereby cutting off three background areas — which areas are beautifully graduated in size from small to large. Giving vigor to the whole composition, as well as making harmony with the enclosing lines, is the positive opposition of the upright movement of the central trees to the shafts of clouds and the level mass of water. This composition is not only unusually forceful, but is novel as well, and is, therefore, worth while carrying to nature as a basis of selection. Be it said, in passing, that a landscape theme in the eye is like a new word in the ear — the world is suddenly filled with it. While this is a fine example of a composition in rhythm, the principle is not so obvious as in the Hobbema landscape (Fig. 7). The latter composition shows, as the starting-point, a splendid tree lifting itself so as to dominate the space and lead its gradually diminishing train across the watery scene. The same triangular mass results and cuts the remaining space into much the same area as in Fig. 3. In Constable's "Valley Stream" (Fig. 9) the varying shapes of trees, roofs, and wandering stream are so unified as to make the



THE WATERING PLACE (FIG. 8) GAINSBOROUGH



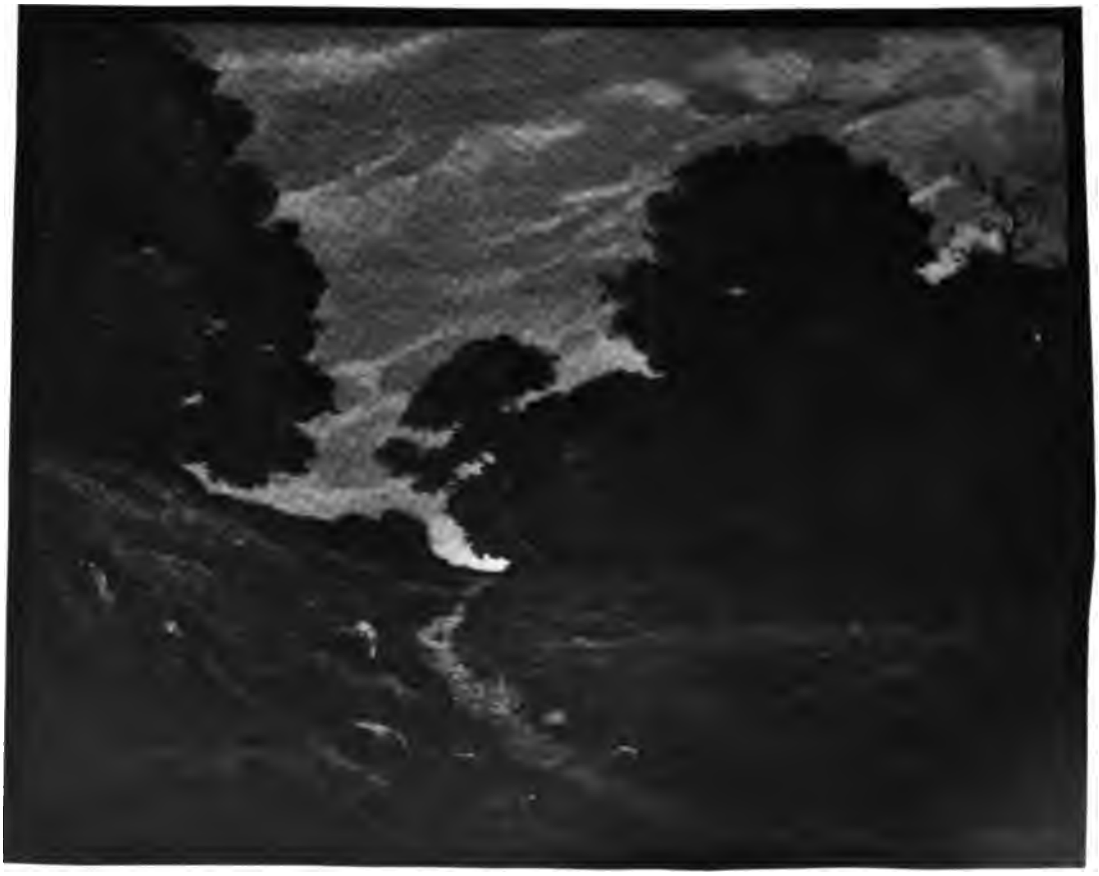
THE VALLEY STREAM (FIG. 9) CONSTABLE

unmistakable rhythmic form which we have under consideration and which for many years was a favorite in landscape composition. Constable's power in composition is further shown by the preservation of the strong vertical and horizontal opposition in spite of the complete adherence to the principles of rhythm in the arrangement of the central mass. Neither is anything neglected in the way of drawing, and the variety of line in clouds, roofs, trees, and stream is admirably handled. Even the lace-like quality of the foliage has been given. The Hobbema (Fig. 6) gives opportunity for comparing the compositions in Figs. 2 and 3. Whether to consider the magnificent tree cluster at the left as principal and the smaller masses toward the right as subordinate, and capable of balancing the large mass, thus comparing the composition to Fig. 2, or whether to study it as an example of rhythm and refer it to Fig. 3, might be a question. But, upon reflection, the tree groups relate themselves as successive, and their resemblance destroys the sense of contrast necessary to the balance required by the theme in Fig. 2. Curiously enough, this picture suggested the setting of the lofty mass in Fig. 3, though the accessories had no influence upon its full development.

The tail-piece is an example of opposed rhythms, but it is affected by repetition (another form of rhythm) in such a way as to debar it a starting-point in the description of simple examples of that principle. The land forms move off in good order, as the tree forms do in the Hobbema (Fig. 7) and the tree and house forms in the Constable (Fig. 9). But directly opposed to this movement are the march of the trees and the sympathetic movement of the clouds, — all rhythms by repetition. This is, however, a very clear statement of rhythm. It is affected, of course, by the demands of the long space and the slight introduction of decorative formality. It is well to note here the sympathetic long horizontal clouds, repeating the level border line and the strict uprightness of the trees which thus relate themselves to the ends of the enclosing space.

To conclude the subject of rhythm, the composition of the head-piece should be taken into consideration. Aside from certain other specific space demands, the length of the composition makes requirements generally met by that form of rhythm called repetition. Though this particular example may be classed as decorative, many easel painters use this somewhat panoramic form with distinction. There is a much-admired Lerolle in the Boston Museum of Fine Arts showing exactly this characteristic arrangement. The well-known "Shepherdess" of Lerolle is a horizontal composition of the same order. There is a fine Corot in the Louvre, Paris, composed on this basis of repetition. Even Monet has selected such repetitions to paint from.

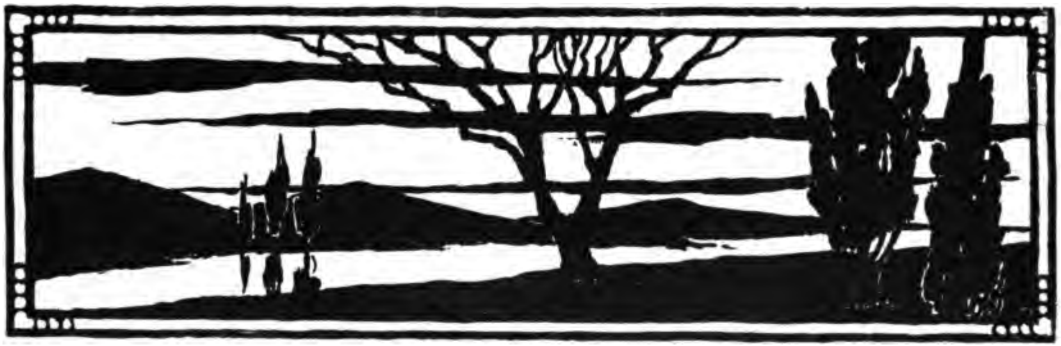
Returning to the last two of the drawings illustrating shape arrangements in landscape composition, we take up Fig. 4 as a distinctly modern theme. Whether the intense admiration Americans accord to Burne-Jones's "Golden Stair" has given to this form its fascination, is an open question. So far as possibilities go, dotted all over New England is the square built farmhouse



CHEMIN À PENZÉ (FIG. 10) HARPIGNIES

set high on a hill. It cannot be far from a ravine with a rushing or tinkling brook, as the "in-betweens" of land are not expansive in this region. To make the composition wider is to take in another ridge, stream, and house, very likely. Hence, the scene is as typical as the blossoming shad-bush at the bend of the brook. The back-and-forth movements across the space *are* movements and consequently rhythmic. It is a good theme to ring changes upon — and there must be *changes* to keep the theme from becoming trite. Figure 5, as far as principle goes, is the same as Fig. 2, but as to general idea, it is a wood scene, with the light cut off at the rear. The problem of getting a sufficient body of light into such a composition requires thought for its solution. Here is a suggestion which certainly has a fair chance for demonstration, since the last year leaves lie whitened on the ground in such scenes, especially in beech woods; and either beech or sugar maple display light trunks in the spring.

The old proverb of the value of what is left in the ink-pot may well be said over at this point, lest further descriptions and comparisons confuse rather than clear the mind. It is sincerely hoped that some light has been shed upon a good subject, and that the examples from the masters will arouse new and valuable trains of thought in the reader.



HOW I MAKE HOME PORTRAITS

MARY H. MULLEN

AS an amateur who had enjoyed the making of out-door pictures, I longed to try my luck with indoor portraiture, but the wet-blanketing of fellow-kodakers, to say nothing of the specimens of their alleged home portraits shown by some, utterly discouraged me.

A kindly disposed professional, however, hearing my woes and description of my only available room for the pursuit, gave me a working plan, which, while it may not conform to the accepted ideas of lighting, certainly gives, to my way of thinking, superior results to the usual piebald home portraiture.

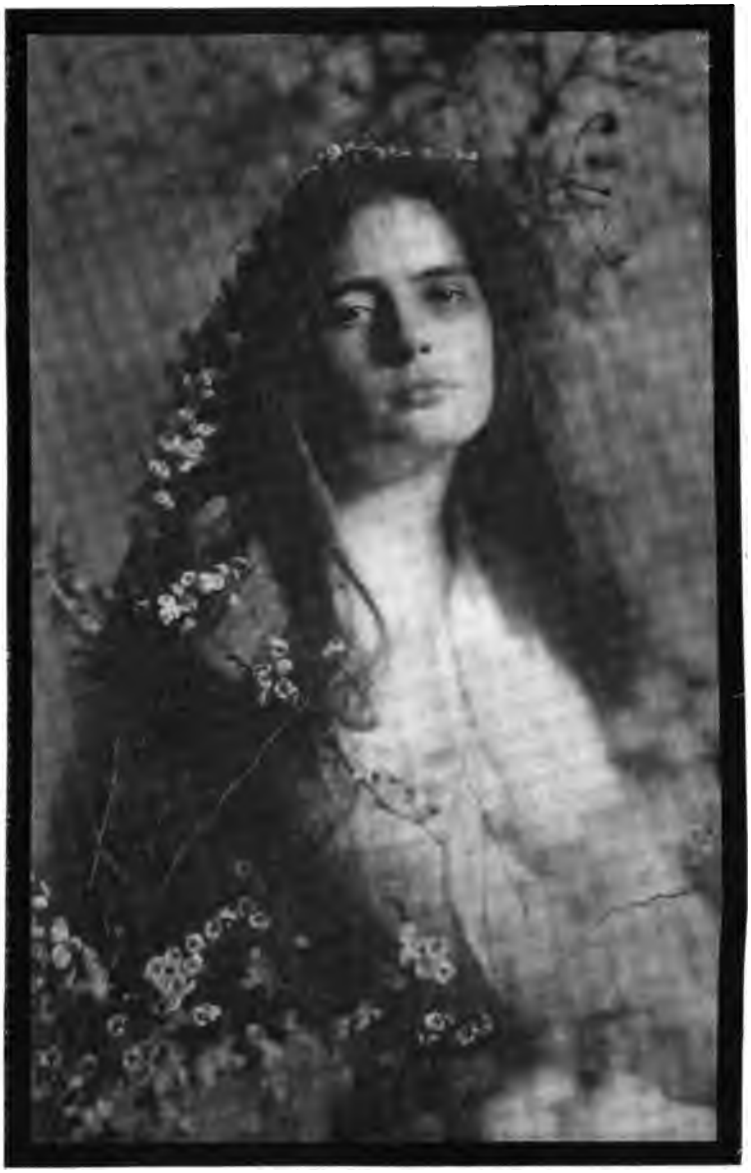
My room, twelve feet long, has one high, wide window facing due east. The white-papered side walls, eight feet apart, will not permit of side lighting, so I pin my white sheet background directly facing my window, the lower part of which is covered with opaque material, the upper with white tissue paper to diffuse the sunlight which blazes in. My camera I place directly under the window, which throws a full front light to my sitter, whom I usually drape in some light material. I use my lens wide open, give a full exposure on a fast plate, develop with M.Q. formula according to my Seed plate leaflet, and print on platinum.

Having little space and no dark room, my methods may be of interest to those similarly placed. I use a coachman's No. 8 candle in my red lamp, and develop on my bureau covered with newspapers.

An empty 6½ x 8½ tray holds my 5 x 7 tray of developer (to avoid possible splashes in rocking same) and I cover both with an 8 x 10 tray. I use an alarm clock to time my development. On first traces of lights, I cover and complete time of complete development according to factor used. I place in hypo without rinsing, since this formula does not stain. After half an hour my plates are thoroughly fixed, when I carry tank to a convenient sink to wash.

Simple as my apparatus is, I could further reduce it by use of the tabloid chemicals and a developing tank, but I prefer the pleasure of individual development.

The accompanying photographs illustrate the lighting, which, while not perhaps photographically correct, may please other amateurs as it does me.



DECORATIVE STUDY MARY H. MULLEN, RED BANK

PLATINUM PAPER

From the Iron Salt to the Finished Print

A. J. JARMAN

THE many failures that have been experienced in attempting to make platinum paper have been caused by the iron salt or salts being imperfect. The only way to insure success is to prepare the iron salt (ferric oxalate) oneself, taking considerable care in every stage of the process, both in manipulation and in operating under a non-actinic light in the formation of this highly sensitive salt. For several years the writer was engaged in manufacturing platinum papers of every grade, as well as being one of the early licensees of the Platinotype Company of London, England. From many years of experience the method here given will enable any one to prepare platinum paper that will give the finest possible results, satisfactory from every point of view. The basis of ferric oxalate is the hydrated peroxide of iron; the preparation of this may be conducted in daylight, — but when made, *all* the after operations *must* be carried out under a deep orange light.

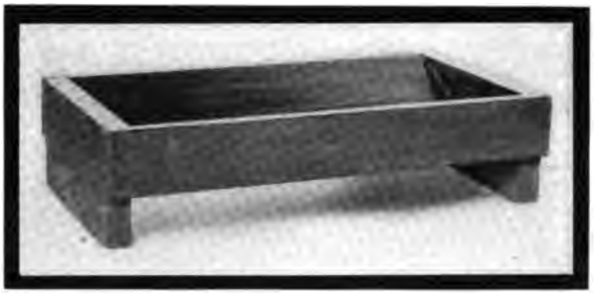
Preparing the Hydrated Peroxide of Iron. — 1 pound (16 ounces) of perchloride of iron is dissolved in 1½ gallons of boiling water, stirring vigorously with a glass rod, or a stout strip of hard rubber (a 2-gallon stoneware crock is best suited for the purpose). As soon as the perchloride has completely dissolved, add gradually, 14 ounces of strong aqua ammonia, a little at a time, stirring well during this addition. In a very short time the mixture will thicken up with a heavy mass of the hydrated peroxide; stirring may now cease, and the precipitate be allowed to subside. In about one hour, the clear liquid must be very carefully decanted, so as not to disturb the precipitate. The crock must now be filled with clean cold water, the mixture stirred well, and allowed to subside again; several hours will be required for this subsidence, when the operation of pouring off the clear portion and refilling and stirring must be repeated for two or three days, until upon testing a portion of the clear waste water in a test tube, no milkiness is produced by adding a few drops of a solution of nitrate of silver, 30 grains to 1 ounce of distilled water. The peroxide must now be poured into a strong filter paper, fitted into a large glass funnel, with a piece of absorbent cotton drawn out like a cobweb, and placed over the apex of the filter paper; this is to strengthen the filter paper at that part, so as to prevent the paper breaking and causing a loss of the peroxide. As soon as filtration has taken place, fill the funnel to the brim with distilled water; at the end of twenty-four hours the precipitate must be cut out with a strip of glass, placed in the clean 1-gallon crock, and ½ pound of chemically pure oxalic acid added with 10 ounces of distilled water. This and all after operations must be carried out under non-actinic light. This mixture must be stirred occasionally during four or five days. The forming of ferric oxalate now takes place. A very important point comes in here, — *always keep the peroxide in excess*, allowing a sediment to remain at the bottom of the crock; this will make the ferric oxalate as neutral as it is possible to get it. After five days, pour some of this rich, greenish-brown liquid into a test glass, test its strength with an argentometer (the same kind of instrument that used to be employed to test the strength of nitrate of silver solutions). It will be found to register at 70, if the operations have been carried out as described. Allow the liquid to subside, then decant, or draw the clear liquid off with a glass syphon into an amber-colored bottle, and label this "Ferric oxalate solution, C.P., 70 hydrometer test." This is the iron salt that is necessary for making platinum paper. The following chemical solutions must be made up as directed, ready for use and marked, A, B, C, D, E, F.

Solution A, Ferric oxalate; Solution B, Ferric chlorate, made by mixing 2 ounces of A with ½ ounce of potassium chlorate solution containing 1 dram of potassium chlorate to 5 ounces of water. C, chloroplatinite of potassium, consisting of 1 ounce of the salt, in 10 ounces of hot distilled water. Allow to become cold. D, 1 ounce of nitrate of lead C. P. dissolved in 10 ounces of boiling

A GRACEFUL POSE
MARY H. MULLEN, RED BANK

water; in fact, boiled in a glass flask until the salt is dissolved. Allow to become cold. E, a saturated solution of oxalic acid. F, a thick solution of gum arabic with a few drops of a five per cent solution of carbolic acid added.

Preparation of the Paper. — Papers both smooth and rough can be procured at art stores that will answer well for the purpose of hand-prepared platinum paper. A suitable wooden trough should be made, as shown in the illustration, so shaped that the liquid resides in the center. Both for convenience and economy coat the inside of the trough with two coatings of shellac varnish. Cut the paper into strips, say 8 or 10 inches wide and 20 or 25 inches long, prepare some wooden strips ½ inch wide, 10 inches long, and ⅛ inch thick, varnish these with shellac varnish; also procure about six dozen wood clips (the kind that is usually employed for photographic use), make up a suitable drying closet, in which the coated sheets of paper can be dried by the aid of a gas stove, also fit up another closet lined with blotting paper, which must be well soaked with water, in which the sheets of paper must be suspended, previous to coating, to dampen the paper, to prevent air-bubbles, and cause even coating. Take the strips of paper, put a light pencil mark upon the back, then place one of the wooden strips at the top of the paper, clip it with three clips, fit the bottom end of the paper in like manner, prepare as many sheets as required in the same way, suspend them in the damping box for a short time, and while they are becoming damped prepare the following mixture for coating: —



THE COATING TROUGH

The Sensitizing Solution. — Under orange-colored light mix in rotation: —

A	3 ounces
B	6 fluid drams
C	3 ounces
D	3 drams
E	30 drops
F	2 drams

Shake this well in an amber-colored wine bottle, then filter through a tuft of absorbent cotton pressed moderately in the neck of a 4-inch glass funnel. Allow the liquid to fall into a wide-mouth, amber-colored bottle with a strip of glass so placed that the liquid falls upon the sloping strip; this will prevent air-bubbles being formed.

When filtered, pour the liquid into the coating trough, take one of the sheets of dampened paper, bend it like the letter J,* lower the left hand so that the paper touches the liquid, then lower the right hand, at the same time lift the left hand, allowing the bent surface of the paper to pass over the liquid, return the paper over the liquid by reversing the motion of the hands, lift the paper, drain the excess of the liquid from the lower corner against the side of the trough, wipe the excess

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* As shown in the illustration.

PORTRAIT
MARY H. MULLEN, RED BANK

from the lower end with a quill camel's-hair brush, then suspend it to dry in the heated closet; the temperature should be 140° F., *not* higher.

Treat all the sheets of paper in like manner; when dry, remove them and lay aside to cool, then repeat the coating, drain, brush off, and dry a second time. When dry, trim off the ends, cut to size, place them carefully rolled and wrapped in a tin case in which a small piece of chloride of calcium has been placed well wrapped in porous paper, close the tin to keep out air until ready for use. The balance of sensitizing solution should be kept in an amber-colored bottle for future use, mixed with new solution for another coating.

COATING THE PAPER

PRINTING THE IMAGE. — Take any suitable negative, place on the paper prepared side upon the film, cover the front of the frame with tissue paper, expose in bright light until the image is printed to the usual depth that platinum prints are made. A trial upon a small piece of paper may be made first of all, then develop in the following solution, which should not be higher in temperature than 70° F., in fact at the usual daily temperature, as the paper is intended for cold development: —

DEVELOPER.

Potassium oxalate, neutral	6½ ounces
Sodium phosphate	1½ ounces
Hot water	50 ounces

Make this in a stoneware crock, stir well with a glass rod, allow to become cold, filter, then use without dilution. Upon inserting the print it will rapidly develop to full density, when it must be placed at once into a clearing acid bath composed of C. P. hydrochloric acid, 1 ounce to 50 ounces of water, allowed to remain for five minutes, then placed in a second bath of like pro-some parts of the print can be developed more than the rest, in fact, local development of a platinum print is easily accomplished by this simple means. If a person has to travel and cannot carry a stock of hydrochloric acid with him, a solution of citric acid or oxalic acid can be used for clearing in the same proportions as for hydrochloric, only the second is apt to poison the fingers, unless they be washed in lime water after use, although the writer has used oxalic acid exclusively as a clearing agent in the early eighties in the hot bath process. Whenever possible hydrochloric acid is preferable. It is necessary when preparing the hydrated peroxide of iron to be sure that the perchloride of iron is of a very pure variety. That of German manufacture sold in 1-pound bottles is excellent.

The perchloride, or as it is sometimes called under the old nomenclature, "Sesquichloride of iron," made by Charles Cooper & Co., or Mallickrodt, can always be relied upon, and doubtless that of many other makers. In any case it must be of that variety that has been super-oxidized by nitric acid. The resulting hydrated peroxide will then be of a light brown color; where this is obtained the resulting oxalate will be perfect. In no instance must the peroxide be red or black, or of a color that approaches black. If such is the case, it will be useless for preparing the ferric oxalate for platinum paper.

Excellent platinum prints in black can be obtained from negatives that are somewhat thin,

A HELPING HAND W. F. EXNER, ST. LOUIS

Third Prize, May Competition

especially from films that have been developed with a metol-hydrochinon developer and lack density, by using the following contrast developer: —

DEVELOPER FOR STRONG CONTRASTS IN PLATINUM.

Potassium oxalate	4 ounces
Sodium phosphate	1 ounce
Hot water	32 ounces
Potassium bichromate	22 grains
Glycerine	2 ounces
Potassium chloride	1 ounce

Stir this mixture well, use when cold. This developer must be kept in an amber-colored bottle, because it is affected by white light. Used in a subdued light, clearing (or fixing as it is sometimes termed) must be carried out as previously described. This developer will give a strong print from a weak negative.

GASLIGHT PAPER ENLARGEMENTS FROM SMALL NEGATIVES

PRACTICAL, HOME-MADE APPARATUS, SIMPLE, YET EFFECTIVE

JAMES THOMSON

SUPPLEMENTING my article on the subject of enlarging upon gaslight paper published in the December, 1909, and January, 1910, issues of this valued periodical, I beg to submit some further observations thereon for the special benefit of the large number who, having cameras of the "Brownie" variety, would fain acquire some sort of apparatus after the fixed-focus type, did they but know how to effectively go about the making thereof.

In my previous deliverance I went more or less fully into the details governing the production of enlargements upon gaslight papers, Velox, Argo, Cyko, and the like, using an adjustable-at-will portable daylight enlarger, which, fitted with a lens as good at least as a "rapid rectilinear," permitted the employment of an aperture comparatively large, thus insuring an excellent print from a short exposure, in some instances twelve seconds, and in no instance over three minutes.

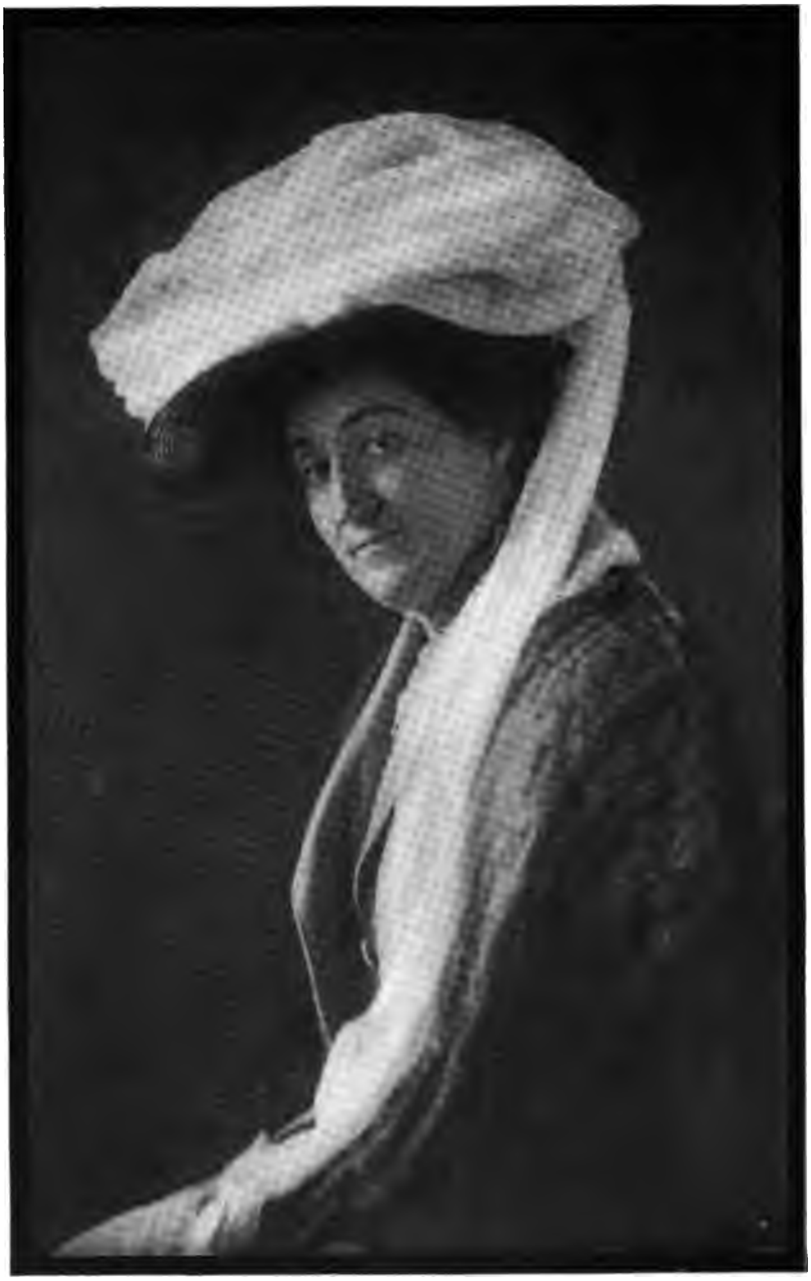
My present purpose is to demonstrate the practicability of obtaining almost equally as good results with the most unpretentious and elementary of apparatus and an anachromatic lens such as an ordinary reading glass supplies, should one's means forbid the purchase of a better, and undoubtedly such people there be.

No claim is advanced that resultant enlargements are as good as can be made, for such is not the case; but they are as good as is required for average pictorial purpose, — indeed, such as should please the most exacting pictorialist, though a single lens (with which produced) certainly lacks speed.

A more serious fault in the single lens is want of rectilinearity. It fails to render straight lines as such when in the region of the margins. Lack of speed and want of rectilinearity, then, are the special faults of such a lens. The first need not bother us much, and with care we may eliminate the second. That is to say, we need not expose upon a negative such as a street view showing marginal vertical or horizontal straight lines.

Further, as the average street view made with a single lens (such as cameras of the Brownie type disclose) exhibits buildings in varied variety of toppling walls, it would only make bad matters worse to attempt to make enlargements from such films with a single lens.

A survey of the young people to be met with in Boston suburb of a Sunday or holiday, also at seashore and country resort, discloses the prevalence of the diminutive box camera habit. More "Brownies" and "Buster Browns" are in evidence than any other make of instrument, nor are



MISS S.
CLARISSA HOVEY, BOSTON

they to be found in the hands of youngsters alone, but amongst older people as well. Very often we find them in the possession of youths and young ladies who, if compelled to pay as much as five dollars for a box, would choose to go without. It is the small sum requisite that appeals to the many, one, two, or three dollars being about as much as can be afforded as an investment. Moreover, a great many cheap cameras are made presents of at Christmas.

However, once the camera has been secured, the owner discovers in short order that it takes about all the spare change to keep it going. What with cost of film, and outlay for other essentials, there is apt to be nothing remaining with which to buy an enlarger, should such an intention be entertained. Rather does one find it expedient if not advantageous to go to some photo supply dealer when an enlargement is required.

In passing I cannot resist the temptation to comment on the business acumen displayed in connection with the Brownie idea. That was an excellent stroke of business on the part of some one, the introducing of the little black box to a waiting world. No doubt primarily intended to garner the coin of the children, it is mostly to be found in the hands of young ladies of more mature vintage, shop-girls, and the like.

When one considers the immense amount of film used, not to say absolutely wasted, which operates to fill the coffers of producers, it would seem as if it might pay to give "Brownies" away for the bare privilege of supplying the means of keeping them going.

In the hands of those who know what they are about, photographic films have certain advantages over plates, though more expensive. So much more costly are they, that in the hands of the average snap-shot fiend they may be looked upon as luxuries. It therefore denotes extraordinary foresight on the part of some one in starting the "Brownie" upon its course as a film camera rather than one demanding that plates be used. Not until the advent of the "Brownie" were cheap box instruments made for film, so far as I can remember.

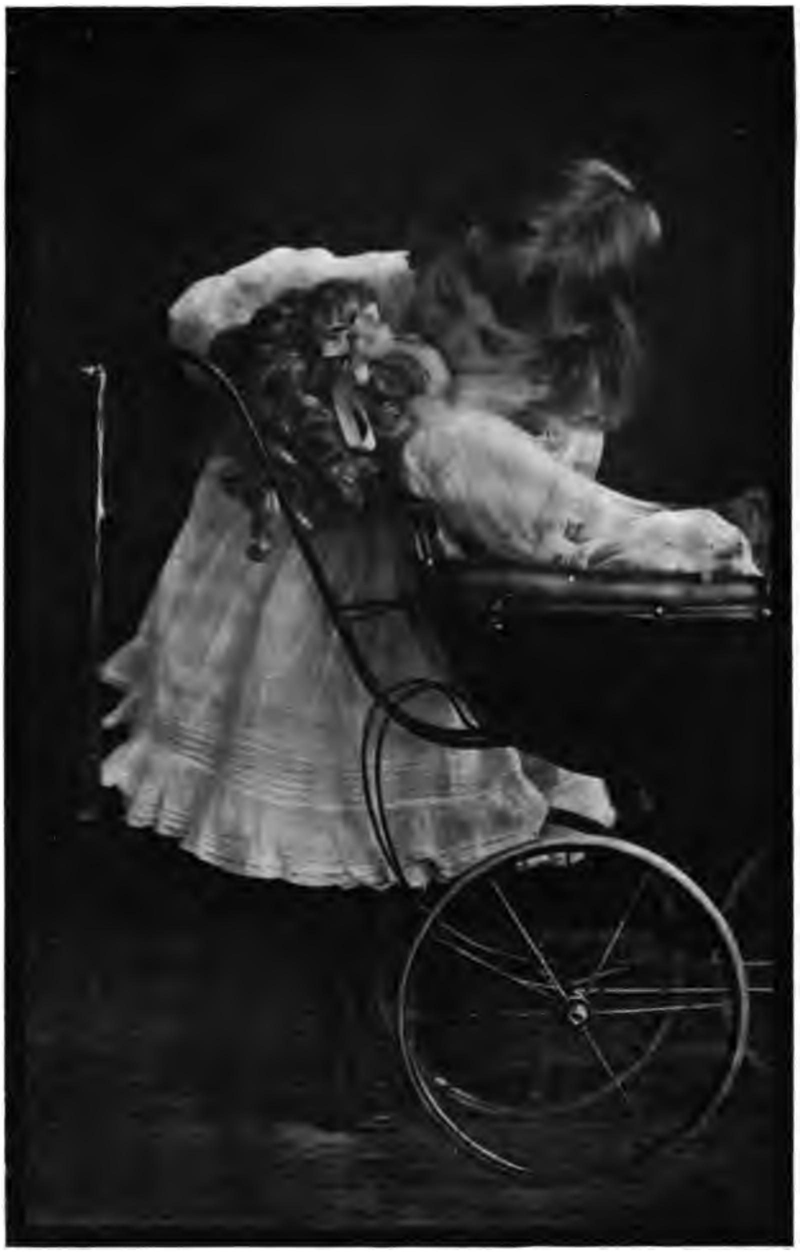
A daylight enlarging camera made of a few strips of wood, some cardboard, and a simple lens, almost any one can make for himself. Having a fixed focus, such an apparatus is most likely to be such as will appeal to workers having small films, and who would be quite satisfied with enlargements of say 5 x 7 or 6½ x 8½. Though I knew perfectly well before I investigated the matter that such an enlarger as I finally fabricated would work, I went about the business of making a model, and now having it made, and proving it good, have decided to keep it in action for enlarged pictures up to 5 x 7, reserving my larger instrument (described in the December, 1909, issue) for dimensions more pretentious.

In this connection let me remark that making enlargements upon papers such as Velox is not so simple a matter as one might imagine. One cannot simply expose to the light of the sky with a certainty of always getting an excellent result unless one takes the precaution *each time*, of testing the strength of light with strips of sensitive paper of the same brand as that about to be used.

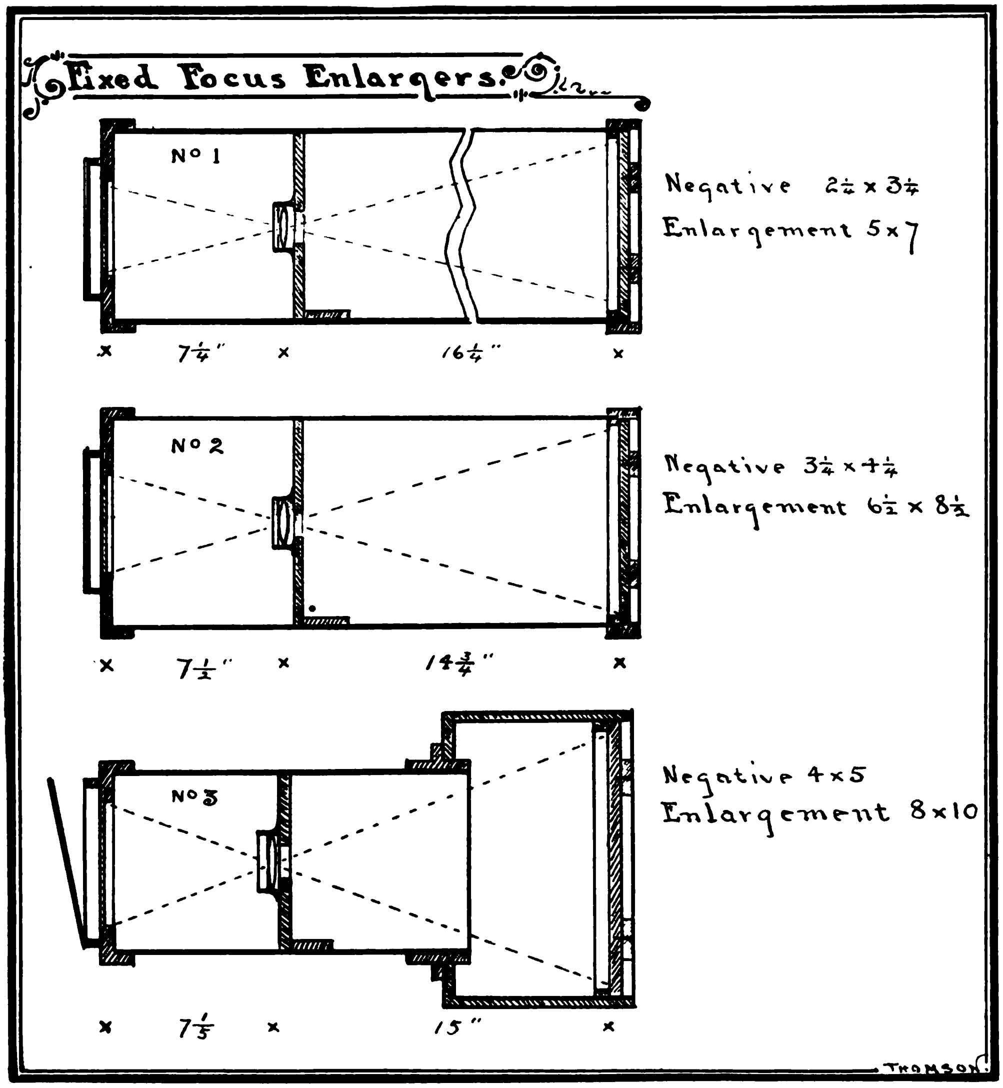
THE ENLARGER

The sketches herewith submitted doubtless will serve to convey a general idea of the make-up of enlarging camera warranted to work. The woodwork may be of some soft material, such as pine, which is easily worked. An empty discarded packing box to be had of the grocer will serve, cutting from it the necessary short lengths. Should stock be obtained of a woodworker, have him "plane up" one long strip and cut it to lengths as required, according as one size or another is desired.

Assuming pieces are cut to sizes, ends should be squared up. Then nail or screw frames so that bottoms and tops shall be at right angles with sides. This done, fill in one of the frames so as to leave an opening a trifle smaller than the negative. If a glass negative, cut a black melton



GOOD-BY, DOLLY
W. W. ROBERTS, NORFOLK
Second Prize, May Competition

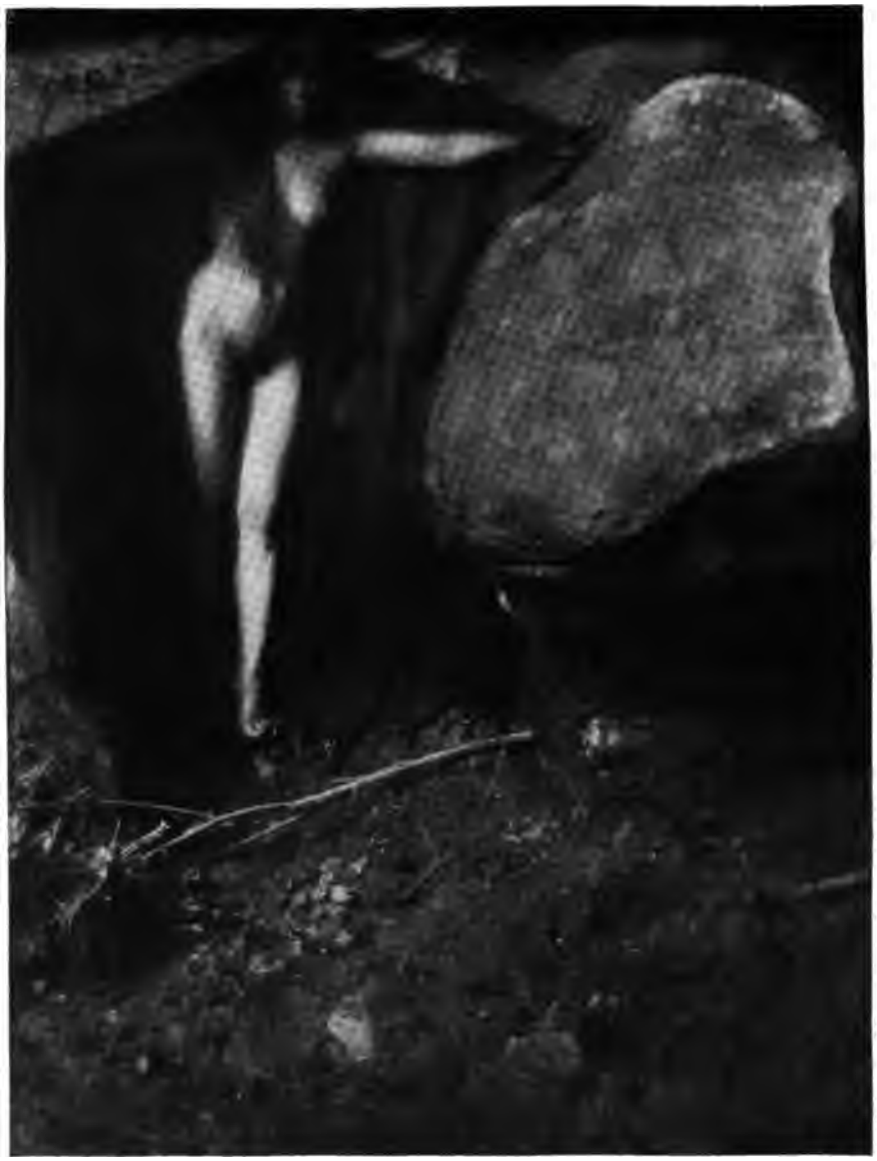


card mount same dimensions as the frame, and in the center cut out a piece just the size of the negative. Tack this card on the frame, the openings coinciding. Thus, when the negative is inserted, there will be a rebate upon which it will rest. A couple of swivel buttons made from a thin piece of brass will serve to keep the negative in place precisely as is the case with a ground-glass screen in the back of a camera.

Where a film instead of a glass negative is involved, *two* thicknesses of card will be required; then into the opening formed by the cut-out portions of card two thicknesses of glass with the film between may be placed when about to enlarge, button keeping in position.

Cardboard — preferably black, strawboard, or corrugated board such as is sometimes employed in mailing photographs may be used as a body, and may be attached either to the inside or the outside. Personally I prefer the former, as being firmer.

Cut cardboard with a *sharp* knife to proper dimensions; then attach bottom and two side pieces by tacking at ends, the top piece for the present being left off. Once this is effected, bind



THE BAT
GERTRUDE KÄSEBIER NEW YORK

with linen, surgeon's plaster, or passepartout tape. If the edges have been cut ***sharp*** and ***true***, passepartout binding, though but paper, will answer.

Nail narrow strips inside the rear frame to form a bed for a sheet of clear glass, which should be cut to be a tight fit and wedged in so that it will not readily fall out. Then fit board to the opening. The board on the inner side may be covered with flannel or felt, to press against the back of sensitive paper the emulsion side of which will be upon same plane as the glass, precisely as in contact work.

THE LENS

Any lens may be used, one temporarily removed from a camera, for example, but enlargers herewith delineated are calculated for a focal length of 5 inches. Presuming that we employ the lens from a 2-inch reading glass (costing 40 or 50 cents), we can remove the crystal from its frame by unscrewing the handle. The board upon which it is to be attached having been fitted to the position it is to occupy, and a hole having been made in the center, the lens may be secured to it in various ways. It can be mounted in a section of tubing such as is used for mailing purposes, the pasteboard cover of a box in which is a half-inch hole, or may be simply secured in place by carpet tacks.

TO FOCUS

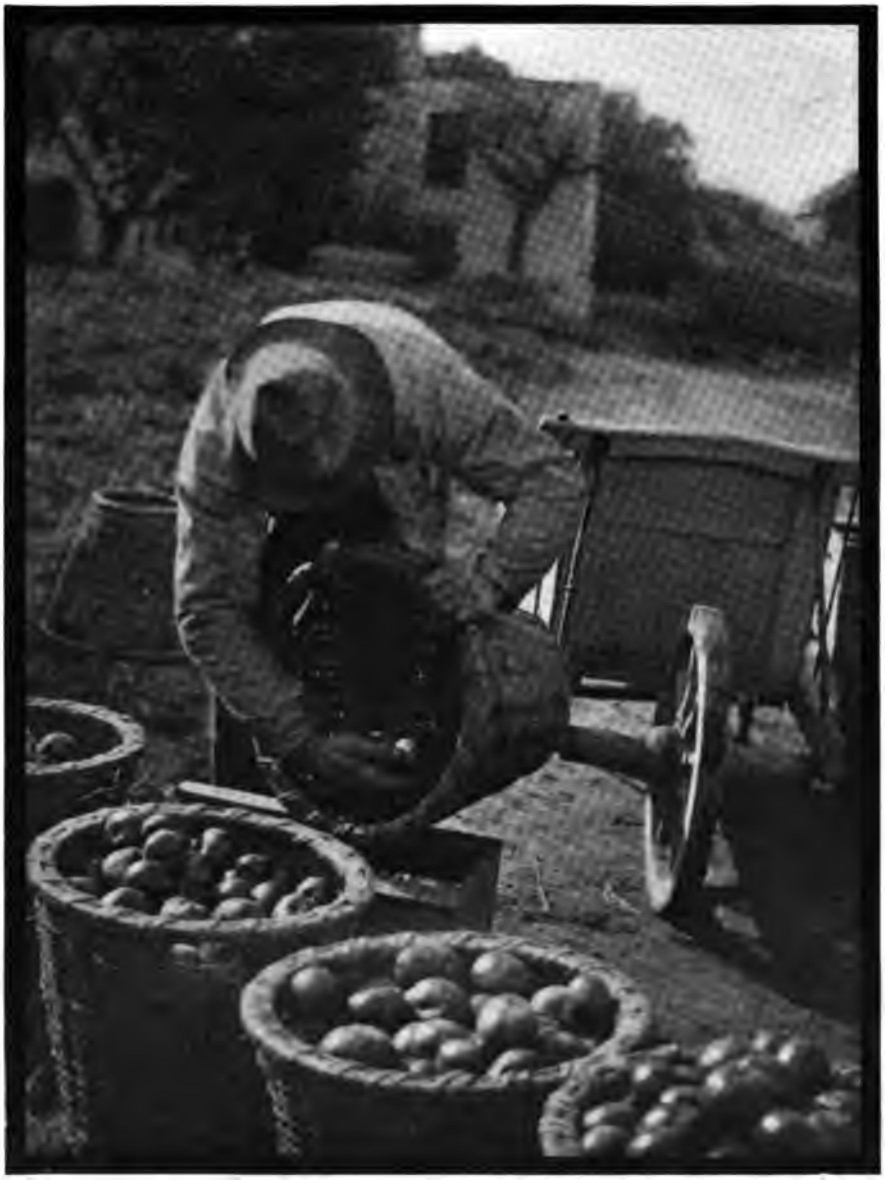
The lens and board being in place, — as should also be a sharp-imaged negative, — the camera should be pointed towards the light, preferably a window. A piece of ground glass being pressed against the sheet of clear glass at the rear, the image will be thrown upon it. While this is being done a cloth should be thrown over the opening left by the temporary omission of top cardboard. To obtain the sharpest focus perhaps entails the moving backwards or forwards of the lens board, a large magnifying glass greatly facilitating matters. As the visual and chemical foci of such a lens as the one involved are not coincident, we must take measures accordingly. It is true that by using a small opening we gain depth of field, but sharpness may not extend to the corners notwithstanding. Rather than focusing sharp upon objects in the *center* of the negative, I should advise getting as sharp an image as possible upon a position *well up or down the plate, say three quarters up*. In thus focusing one should use a black disk with a half-inch hole in it placed in the lens tube. When exposure is made, substitute another in which is an aperture a trifle beyond one eighth of an inch in diameter. We may call such an opening f. 32, but one need not be precise as the same opening should always be used, or one even smaller. Such apertures I make in black needle paper, using an eyelet punch for the purpose. However, a sufficiently round hole might be made with a small gouge, a piece of paper placed between two thicknesses of wood and a hole bored through it, or with a sharp penknife.

A sharp image secured, fasten the lens board in place by nailing from the outside; then finish by putting in position the top section of cardboard, binding the edges with gummed material.

The inside woodwork should be stained black; and if white cardboard is used, the body should be lined with black needle paper, a dozen sheets of which may be had of photographic supply houses for 20 cents. Two in the present instance would be ample. Simply paste paper along the edges, otherwise it may draw the cardboard out of shape.

In my own camera — made originally to confirm certain theories regarding the practicability of so elementary an outfit — brown cardboard is used and no black lining has been necessary. Nor would a lining be necessary with strawboard unless bromide paper is used to enlarge upon.

The boxes as shown in drawing, having slides to form shutters to exclude the light when camera is loaded, are simply included as a suggestion, as in practice I have never found this feature necessary. The fact is, exposure in the present case being always a matter of minutes, there is small need of instant turning on or shutting off of the light, a second more or less being of small moment as affecting result.



FRUITS OF THE EARTH
GERTRUDE KÄSEBIER, NEW YORK

Reverting to the subject of focusing, I would remark that there is no need of investing in a large piece of ground glass for the purpose, as it would be used but once. A small piece will answer, as it can be shifted about, *the dull side* pressed up close against the surface of the clear glass sheet, consequently being coincident with the sensitive film of the paper.

SUITABLE PAPER

If familiar with a particular make of gaslight paper, the worker would do well to use it for enlarging purposes, as all are good when manipulated properly and no one manufacture possesses all the excellences. The contrast brands should, however, be avoided unless a negative be very flat.

Some papers cost about double what others do, though to the average person the advantages are not apparent. Personal preference has been now narrowed down to portrait and special portrait Argo, also normal (yellow label) and soft (red label) Cyko. Studio Cyko has an excellent collodion-like surface, while soft Cyko has a velvety semi-matte texture, both pleasing.

A study of the manufacturer's booklet will disclose the characteristics of product. The Velox, Defender Tipster (Argo), and Cyko manuals are free for the asking from our advertisers. For an intense negative special portrait Argo is indicated, and for a soft or thin one normal Cyko is in order, there being a choice of some half a dozen surface textures.

With special portrait Argo, regular exposure, a normal negative and development with metol, soft gray flat prints are the rule, while the adding of hydroquinone in increasing quantity, — say all the way from ten to twenty per cent, — will serve to produce results more or less vigorous. Then again we may use this paper with a normal negative, give once, twice, or thrice the usual exposure, dilute the developer with water one to three or one to four, add from ten to thirty drops of bromide, and obtain vigorous black and white results. This is, however, in the present instance, inadvisable, unduly prolonging exposure as it must. It is therefore advisable to have resort to a couple of grades of paper, — a medium grade and one giving soft results. Multiplicity of grades but adds to confusion.

EXPOSURE

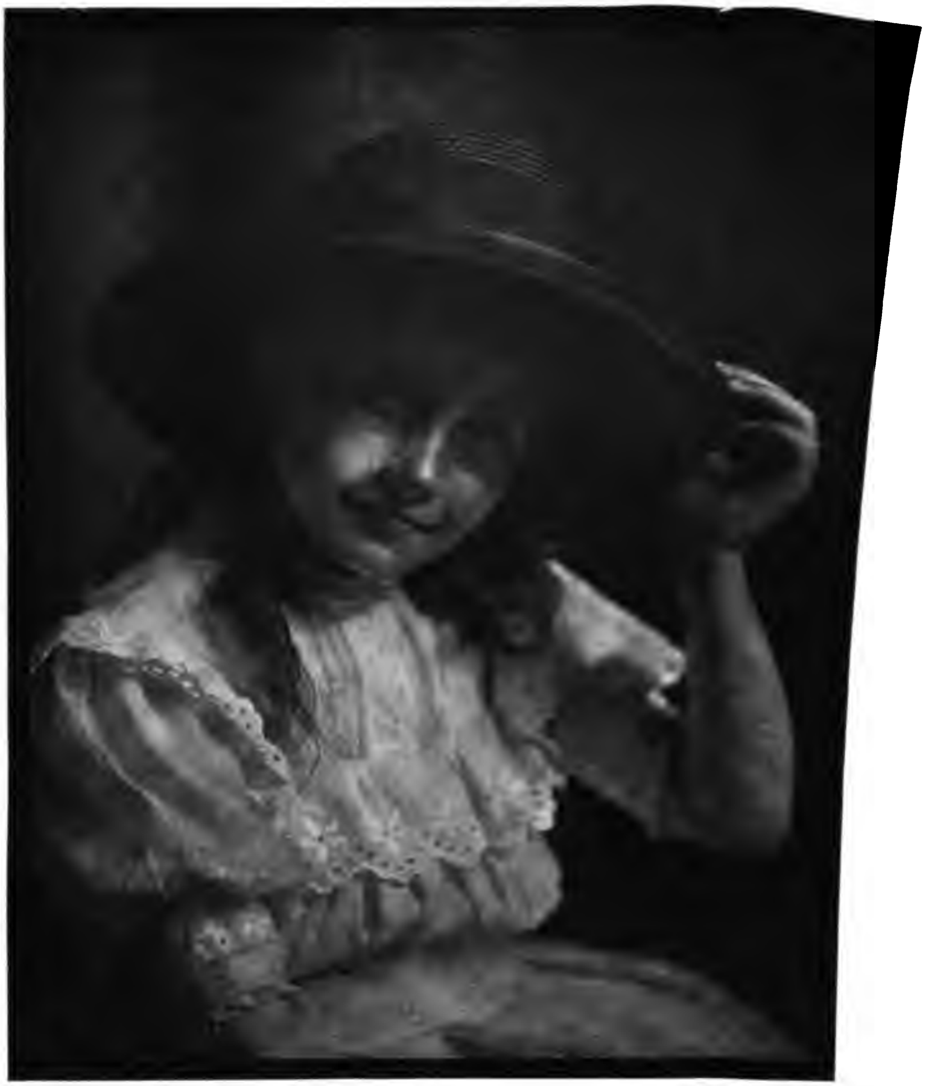
I have found exposure with this enlarger and lens to run all the way from six to fifteen minutes at the time of writing (February), and of course in summer exposure would be very much less. Red label Cyko is very rapid, about twenty per cent faster than portrait Argo, particularly when a short exposure is accorded and development is in full-strength metol. In July last, using a typical thin pictorial quality negative, but twelve seconds of exposure gave excellent results, the lens employed being of the symmetrical doublet type and aperture f. 11.3 (U. S. Number 8).

As the light of day varies more or less, there is but one certain way outside of employing an actinometer to measure it, and that is by the use of slips of paper to test before venturing a large sheet. "Rather be sure than be sorry."

Cut up 4 x 5 paper into inch wide strips, and when about to enlarge place one of the strips so that it will be diagonally across the holder and expose to the light of the sky in the enlarger, the negative of course being in place. On developing, if the shadows are flat, muddy, or mealy, over-exposure is indicated. On the other hand, when image appears slow and weak, lacking in detail, exposure has been too short.

With regular exposure and developer development should be complete in from twenty to sixty seconds.

Enlarging may be done at an open window facing the north, the negative end of apparatus pointed skywards; or the enlarger may be placed on end upon the ground out in the yard, on a roof, anywhere in fact where the sun does not obtrude so as to shine directly upon the negative.



OUR LITTLE GIRL
C. VERSCHNUUR, BUSSUM
Dutch Professional Section, Dresden Exposition

As brands of paper designated are much more rapid than regular carbon Velox, extra care must be exercised accordingly. Read directions regarding safe light in the makers' manuals.

In developing use a porcelain tray or one porcelain lined, and keep scrupulously clean; nor must it be used for other purposes.

Thinking that on account of the porcelain lining it would not much matter, I used my developing tray to contain sulphide of soda solution when making sepia prints. I afterwards washed the tray in dilute muriatic acid and thought no more about it. Next time I developed, however, I discovered one print after another coming along with mysterious mottling in places. I at first thought I had struck a defective lot of paper, but finally traced the trouble to the sulphide, evidence of which, despite washing, still remained as a sort of film upon the porcelain. To remove, I employed Farmer's reducer. I filled the tray with water, threw in a tablespoonful of hypo and a large crystal of red prussiate and left it to soak. In half an hour the tray was as clean as when new, but of course a very thorough washing was in order.

The developing agents supplied in tube or otherwise by the makers of the various papers may be employed; but where much developing is to be done, it is better to make up one's own solution. I have found the following to be satisfactory.

METOL-HYDRO DEVELOPER

Water	10 ounces
Metol	7 grains
Sodium sulphite (dry powder)	120 grains
Hydroquinone	30 grains
Sodium carbonate (dry powder)	200 grains
Bromide of potash	3 grains

Use full strength or diluted with an equal quantity of water, and when necessary add more bromide to get good blacks.

METOL DEVELOPER

Water	16 ounces
Metol	75 grains
Sodium sulphite (dry powder)	1 ounce
Sodium carbonate (dry powder)	120 grains
Bromide of potash	5 grains

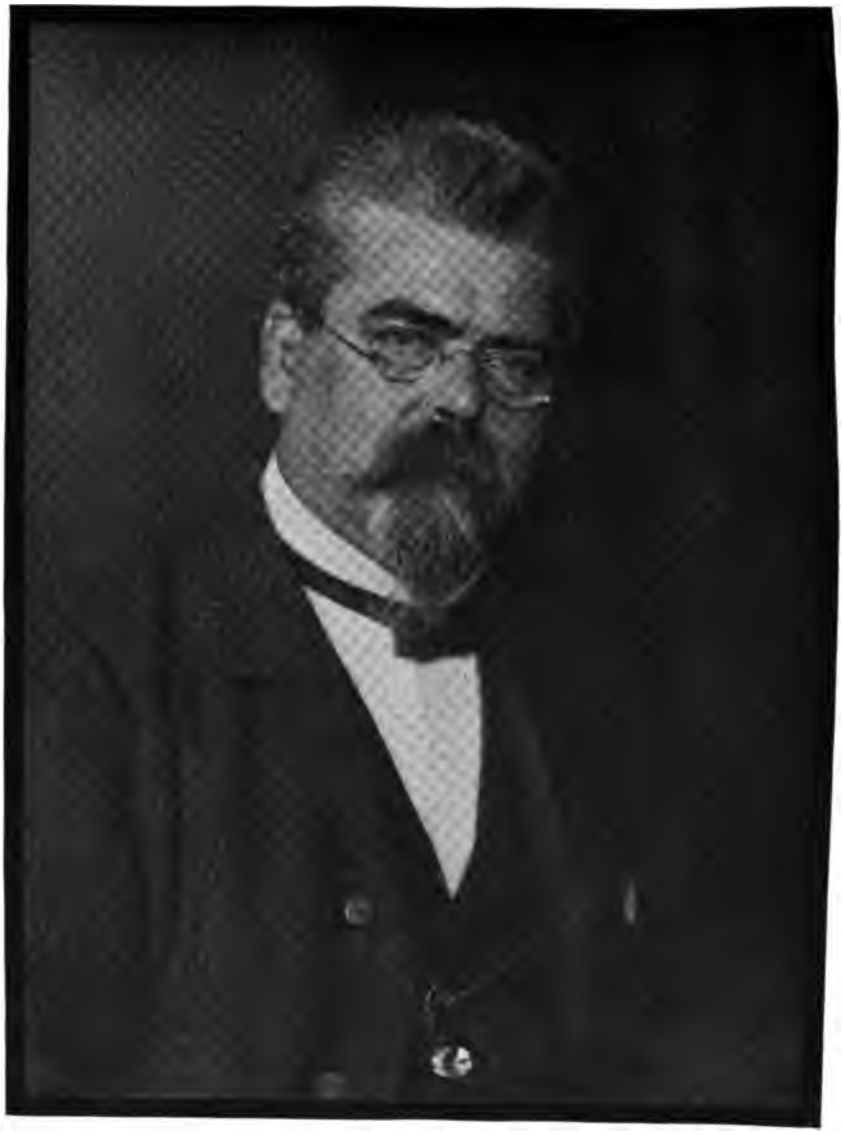
Short exposure and development in full strength solution result in soft effects. Double exposure and development in solution diluted with an equal volume of water and additional bromide give more contrast and blacker tones.

For the pictorialist metol is to be commended, as it results in a softer image, beautiful gradation, and in conjunction with special portrait Argo, immense control as regards effect. Thus we have the option of the softest of gray prints, or normal contrast.

For additional matter on the subject of development I would refer to the articles in the December, 1909, and January, 1910, issues. Also may it be advantageous to consult "How to make a Fixed Focus Enlarger," April, 1909, magazine. No need for me to detail what can be readily found there, matter affecting the employment of lenses, varied focal capacity, and other valuable data.

For a lot of valuable information regarding the handling of the papers made, consult the makers' manuals.

Dense negatives used to be common, but since Brownie and other time development devices were introduced, there has been a great improvement in this respect. If, therefore, films have been developed by machine or tank, and with the Eastman pyro formula as exemplified in the powders made up and sold to amateurs, they will conform in density with my own negatives, hence from three to six minutes at this time of the year (June) may be regarded as a guide to govern tenta-



PORTRAIT
EMIL VOLLENWEIDER, BERNE

tive exposure. This supplies a basis upon which to commence operations, which is a good thing for those not knowing whether essential exposure is a matter of seconds, minutes, or hours, as a great many do not.

When I took up enlarging upon gaslight paper, my basis of exposure I got from a Brownie enlarging camera advertisement, which gave thirty minutes as the maximum and twenty as the minimum. I kept on reducing the time until I found myself getting prints in twenty seconds, which was still further reduced to twelve seconds by developing in a strong solution of metol.

Here was I finally getting results in fewer seconds than was promised me in minutes, but it meant a great and quite unnecessary loss of paper in getting there. The long exposure of the advertisement may be attributed to a slow lens — one with which a small opening is necessary—and a dense negative.

In regard to sketch showing the enlargers, I would add that framework should be made of three eighth inch stock one and one half inches wide, outside dimensions being as follows: Number 1, 7 x 9 inches; number 2, 8 x 10 inches; number 3 — at negative end — 7½ x 8½ inches, while the larger end measures 10½ x 12½ inches over all.

Needless to remark, in the making thereof all parts must be true, the wood frames and boards parallel, otherwise one portion of the image might be in perfect focus, another not.

The experiments upon which the foregoing data are based were conducted during the month of February of the current year (1910), since which further investigation has disclosed a means of overcoming in great measure the fault of want of rectilinearity in an uncorrected lens such as is here involved.

All that is necessary is to focus sharply on a size somewhat greater than enlargement desired. Thus where a 5 x 7 enlargement is required, we may focus for a 6 x 8 with a surety of having all marginal, vertical, and horizontal lines appear strictly as such.

We thereby of necessity sacrifice a portion of the negative, but as a rule the average view can well stand the elimination, made, as is generally the case, with a lens of much too short a focal length, hence subject to distortion, or at all events, exaggeration.

Making 5 x 7 enlargements from a 4 x 5 negative I have found this method to work perfectly.

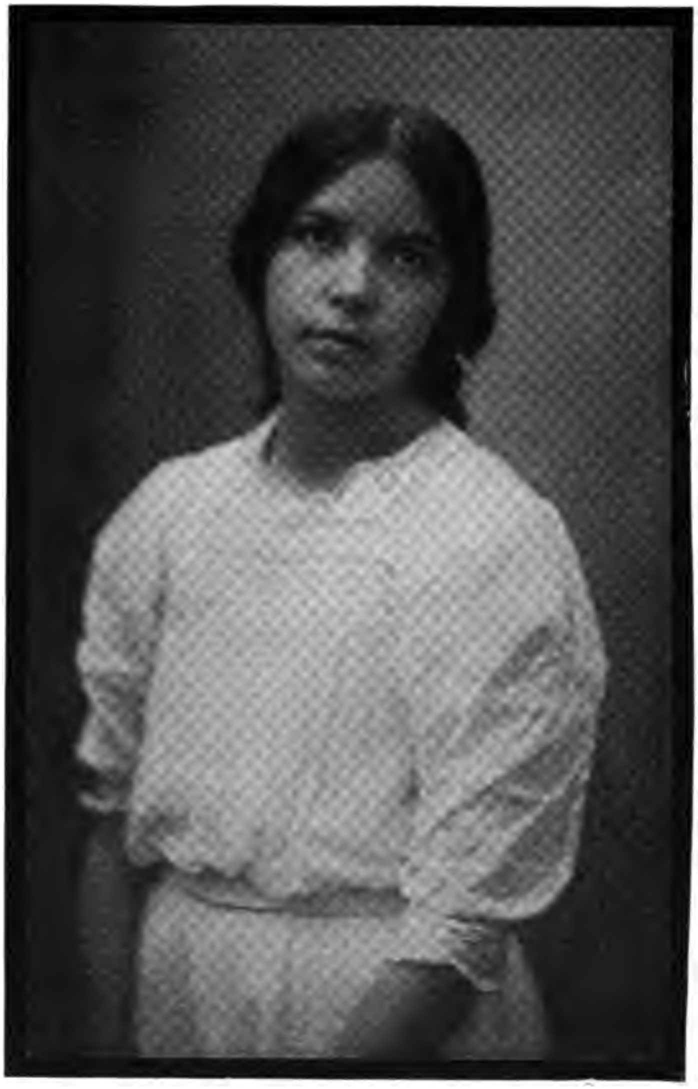
HOW TO MAKE A RETOUCHING FRAME AND HOW TO USE IT

RICHARD L. RINCKWITZ

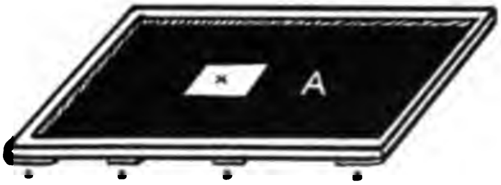
RADICAL," "Secessionist," exponent of the "fuzzy-type," these are all terms that have been hurled at the amateur, often by the professional photographer. Yet, curiously enough, it is that very class that has had its ranks enriched by the type so openly derided.

The amateur brings with him, one must admit, a quality that is radical in its fearlessness, differing from that of the professional whose past experiences make him conservative — often to the point of being hidebound. The amateur ventures where the other fears to tread. I have seen many professional photographers who never attempted retouching; if they couldn't afford to employ a retoucher, they sent the work away and had it done. "I cannot attempt it; I haven't had the training," they would say, and so put up with the many inconveniences, delays, poor work, etc., entailed by the latter method.

Retouching is not difficult, and requires simply a little application and taste. If you have had some training in an art school, or even attended one of the night schools for drawing so numerous in the larger cities, so much the better.



PORTRAIT
P. KOPP, REINACH IN AARGAU



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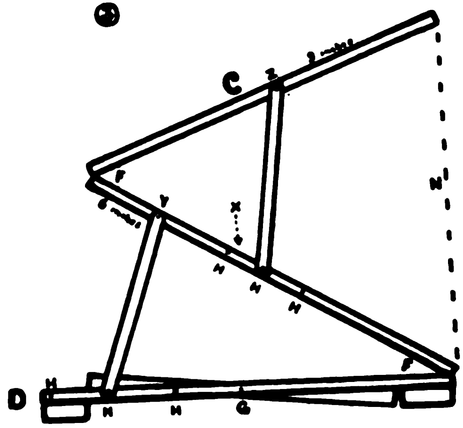

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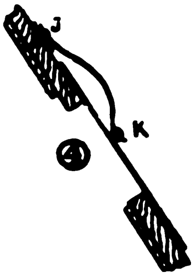

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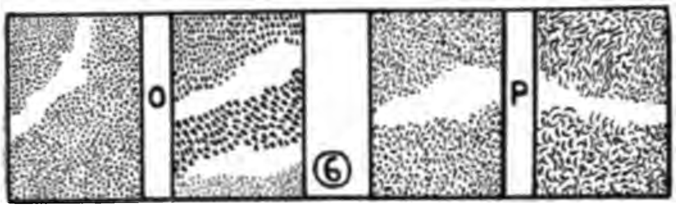

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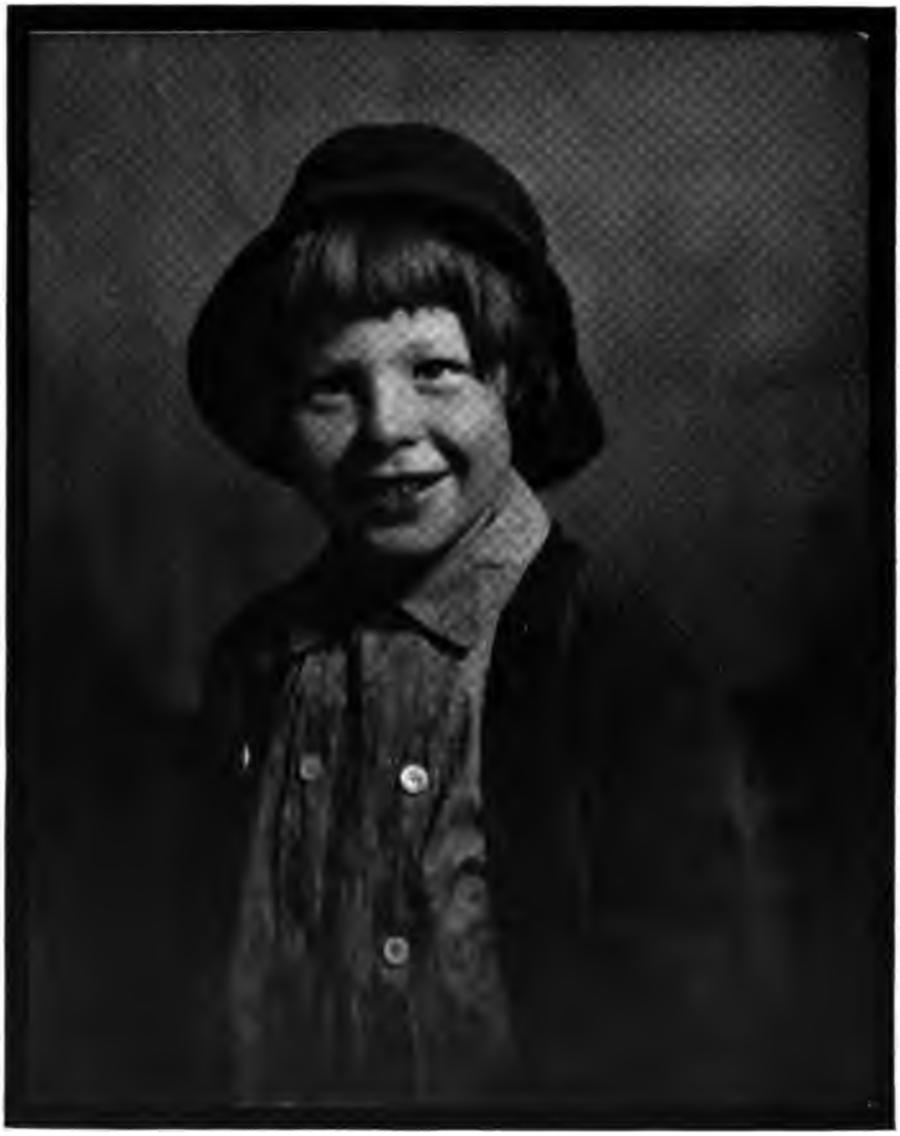
As a stepping-stone to something better, a knowledge of retouching is excellent. Goldensky, one of our foremost photographers, was a retoucher prior to becoming a photographer, and, it is said, had never exposed a plate beneath the skylight until he opened a studio of his own. One fifth of the application and one sixtieth of the expense attached to an ordinary course by correspondence will teach you, in these pages, a profession that later may be invaluable. This applies to both sexes — to any one, in fact, who is looking for an opportunity to advance. From photography as a hobby and retouching at home, to some position in a studio as assistant or receptionist (where the knowledge is essential), and later a studio of your own — it has been done before, and can be done by you. Which do you prefer — perspiration or aspiration? A position under some one else all your life, or to be a wizard of the lens and wear a flowing tie — a professional photographer?

The outfit is simple and extremely inexpensive. The retouching frame you can make yourself, or, if you are a girl, get your big brother to do it. The wood from a packing case or other box is excellent.

Make a frame, Fig. (1), 16 x 20. The bottom (A) should be of light wood entirely, or as in drawing, four strips (B), with heavy cardboard inside. Cut out a square about 4 x 6 (smaller if you are using plates under 5 x 7), just above the center (dotted line). Now make a duplicate frame, which can be lighter, with cardboard on top (C), in Fig. (2). (D), the frame for base, is to be fairly heavy, with stout cleats 1 inch thick at either end, to raise it and allow play for the reflector (E). The latter is simply a light frame on pivots at (G), and covered with white cardboard to reflect light upward through the negative at (X). It is best to make this fit tight, so that it will stay in any position.

Hinge the three frames together at (FF), the idea being to allow the whole to fold into little space when not in use. Now get a square of dark cloth (the black oilcloth used to cover buggy-tops



CHILD STUDY
A. L. PRINCEHORN, OBERLIN
First Prize, June Competition

is excellent and cheap) 20 x 20 inches square. Cut this through from one corner to another and tack one of the triangular pieces on either side in space within the dotted line (N). If the oilcloth is used, it will look better if the finished side is outward. The inside of the two frames, also of the oilcloth, if that is used, should now be blackened — ladies' shoe polish is excellent for the purpose.

Make four pieces of wood shaped like Fig. (3), 1 foot long, ½ inch thick, and 1 inch wide. Two are to be fastened, one at either side at (Y) about 6 inches from the end, and one on each side at (Z), about 9 inches from the end.

Drive in a nail on either side at places marked (H). These are for the purpose of engaging ends of braces when the frame is open for work.

Get two pieces of spring (an old mainspring from a clock, or two old clamps from a printing frame will do). Bend these as in Fig. (4), which shows a section of frame (A), with negative in use over open space. The two springs are to keep negative from sliding down. Punch a hole through springs at (J) for nail or screw, the latter is better. At other end file a notch at either side, and carefully wrap the narrow place thus made with ordinary soft cord until you have a small, solid ball, as at (K). The latter is to keep spring from scratching negative when shifting same about.

On inside of frame at top of (C), Fig. (2), it is a good plan to tack a strip of oilcloth or leather for retouching pencils and other small tools, as in Fig. (5).

A beginner's working outfit need consist of very little. The following will be quite sufficient for all ordinary work at present: --

1 can calcined emery flour	25 cents
1 number H pencil, best grade	10 cents
1 red sable spotting brush	8 cents
1 tube black water-color	10 cents

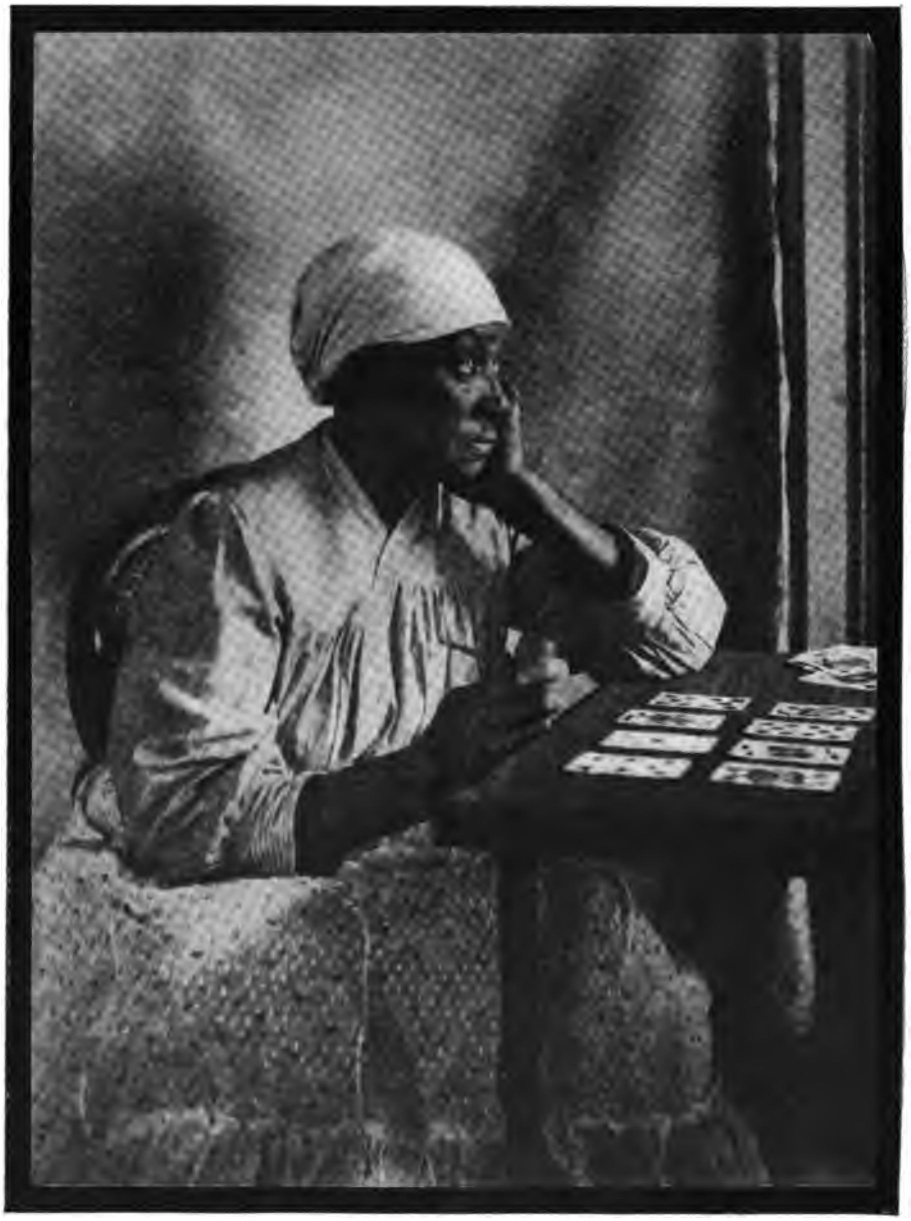
I am, of course, assuming that you are the merest tyro. An advanced worker will require a more varied outfit.

Take an old plate, one that has been fogged, but preferably without detail of any kind. Roughen the part you wish to practice upon. Many photographers get tooth, as it is called, by using a very weak varnish rubbed in until dry. The calcined flour will do this as effectually, and is more certain for a beginner. Use one or two fingers when applying, and rub gently. If, when dusted off, the place has an even, rough appearance, stop, or you will reduce the negative in density at that point.

Now sharpen your pencil until you have a keen point. A piece of fine emery cloth (five cents' worth will last five years) upon a block is excellent. The "wire-edge" upon point of pencil should be removed upon a piece of blotter or soft cardboard.

Remember that the secret of successful retouching is rather to do too little than too much; it should be done lightly. Practice dotting and stippling as in illustration (6). Many workers favor the dotting method, as in (O), while others prefer the zigzag motion, like (P), almost entirely. The great majority combine both, adapting themselves to the varied degrees of opacity met with in different negatives.

The illustrations accompanying this article are all supposed to show how retouching, greatly magnified, would look. After you get your pencil under control and a proof shows an almost even, *light square*, try the next one, Fig. (7). Trace this section of a head upon a negative, and with the simple strokes and dots practiced before, see how good a head you can make. The idea, remember, is to get control of your lights and shadows; to learn to model and shape features by the process of building parts. Then, after you see what simple little dots and dashes can do you will better understand actual work. And when you have a negative with the form and features before you it will seem extremely simple. Make proofs of your heads — remember that your black dots and strokes are making *lights*, not shadows. Make head after head, each as near like the copy as possible, placing them before you in a row to see the progress you have made, and to rectify future mistakes.



AUNTY JACKSON'S REVERIE
J. P. HAMBLY, AURORA
Second Prize, June Competition

THE USE OF THE CAMERA FOR TECHNICAL RECORDS

D. R. BATTLES

THIS article is not addressed to the scientist pursuing highly specialized work with apparatus designed especially for his use, nor to the professional photographer who makes the taking of technical photographs his business. It is rather a plea for the more common use of the camera by men of scientific or technical training for serious records of their own work. There are many engineers, architects, doctors, etc., who use a small hand camera occasionally as a means of amusement, who never realize that it might furnish them with valuable data for use in their future work.

Obviously, the type of apparatus that will give most satisfaction depends on the kind of work that is to be recorded. There are to be considered for this work the following types: the view camera, the hand camera of the cycle type, the folding film camera, the small plate camera, and the reflex. In fact, almost any camera except the box camera may be used. An attempt will be made to show for what work each camera is best adapted.

The view camera is obtainable from the 5 x 7 size up. It has in general the widest range of movements of all the different types, a good model having reversible back, ample bellows length, large lens board, rising front, cross front, front and back focusing pinions, and double swing back. Of course all these movements are paid for in weight; and no finder being fitted, the camera cannot be used as a hand camera. The optical equipment and shutter are entirely under the control of the buyer, as such cameras are sold without lenses. On account of their lack of portability these cameras are only available for work which is confined to one locality, and which is stationary. For such work they are, however, superior to any other type.

The next class, the hand camera of the cycle type, includes apparatus of widely differing cost and usefulness. The best of the type will have nearly all the range of movement of the view camera. The cheaper ones have only the bare essentials for making a picture, and their sphere of usefulness is accordingly narrow. These cameras can be obtained in sizes ranging from 3¼ by 4¼ to 8 x 10. As the difference in weight and bulk between the cheaper and the more expensive cameras is not great, if the money is available, it is decidedly desirable to buy one of the latter. It will provide a reversible, or better yet, a revolving back, swing back and bed, rising and sliding front, triple extension bed with correspondingly long bellows, and perhaps an auxiliary bed for use with wide-angle lenses. This camera will do almost all that the view camera will do, and can in addition be held in the hand when necessary. It takes plates regularly, but as a usual thing can be used for roll films or film pack by the use of a suitable adapter. The roll film holder takes up as much space as three plate holders, and is not very convenient. The film pack adapter is no bigger than a plate holder, and is to be recommended to such as desire to use films in a plate camera.

Smaller and lighter than the above are the folding film cameras. These usually are rather restricted in their usefulness, on account of their lack of the movements given with some other cameras. Their lightness and general availability, however, make them probably the most popular form of camera, at least in this country. They are of two types, those using roll films and those using film packs. The latter are smaller for the same size picture. Both can be loaded and unloaded in daylight, and the roll film can in addition be developed in daylight. Several foreign manufacturers and one American furnish the camera with a double extension bed. This is a convenience if a convertible lens is used, as it allows the use of one combination alone. If a plate back is used, it is also useful for copying near full size, but when copying on films focusing is so uncertain as to make the result very doubtful. These cameras are very convenient for general use, and will frequently give excellent records, but if a person is buying a camera with an especial

THE DOCTOR'S BUGGY HENRY THEW STEPHENSON, BLOOMINGTON

Third Prize, June Competition

view to technical work they are not especially to be desired. The sizes available run from 2¼ x 3¼ to 5 x 7.

The small plate camera has much to recommend it. In the smaller sizes, 2½ x 3½ inches and smaller, one of the main objections to plate cameras, that of weight, largely disappears. These very small cameras recently placed on the market are of the very highest quality. The adjustments are of the greatest accuracy, which is very necessary in the case of cameras for the making of small negatives for after enlargement. The lenses fitted are high-grade anastigmats of various makes, and the shutters are either of the guillotine type built into the front of the camera, or in some cases the compound or koilos shutter is fitted. As a usual thing single metal plate holders are used, which are carried in a purse.. In this class of camera there is considerable variation in size and details of construction, with but little in quality and price. Any of them will give excellent results, and choice is frequently rather difficult. If convenience is the main factor desired, as presumably it may be, if one of these smaller cameras is to be chosen, probably the smallest of all, a tiny little camera taking pictures 1¾ x 2⅜ inches is to be preferred. Two such cameras are now available on the American market, and both have a range of usefulness that is astonishing. They have a guillotine shutter that works from ½ second to 1-100dth second, and gives time and bulb exposures as well. There is a direct view finder for hand work, and a hooded ground glass for tripod work. The lens fitted is a high-grade anastigmat working at f. 6.8. The front pulls out and is supported by hinged struts. By a lever the camera may be focused for objects closer than infinity, but due to the short focal length of the lens used the depth of focus is so great that this is not often necessary. For copying, auxiliary lenses are fitted. The camera slips into a purse which can be carried in the pocket all the time without inconvenience, and six single metal plate holders are carried in another purse. These are the only cameras (with the possible exception of a very small roll film camera that takes pictures of about the same size) which can be comfortably carried at all times.

The reflex camera has the advantage of certainty and facility of composition and focusing. It has the disadvantage of size and weight. It remains for the person who is to use the camera to decide whether the advantages outweigh the disadvantages. As a reflex is at the best bulky, it is advisable in buying one to get one with considerable bellows extension, even if it does mean a slightly larger camera. The difference in size will be scarcely noticed, and the camera will then be useful for copying nearly full size. A reflecting camera is very satisfactory for such work on account of the ease of focusing.

So far I have said little about lenses and shutters, because the same remarks apply almost equally to all the different types of cameras. An inaccurate or indistinct scientific record is almost worse than none. Indeed, in so far as it misleads, it is worse than none. Hence, anastigmats are the only lenses to be considered as the optical equipment of a camera to be used for serious technical work. The type of anastigmat will depend on the camera. If there is good bellows extension available, a convertible or symmetrical lens is desirable, in order that different sized images may be obtained from the same view-point. If the bellows extension available is not much greater than the focal length of the lens, an unsymmetrical anastigmat, the parts of which cannot be used separately, will be just as satisfactory, and will be cheaper. The latter is also available in larger relative apertures. As to the maximum aperture desirable, for much work a lens with an aperture of f. 7.7 or f. 8 will be eminently satisfactory. Such a lens will usually cover a much larger plate than that for which it is listed, and makes an excellent wide-angle lens stopped down. A lens working at f. 6.3 or f. 6.8 has speed enough for almost all work, is almost equal to the lens of f. 7.7 in covering power, and is probably the best for average work. Lenses working at f. 5.6 or f. 4.5, or even f. 3.5 are special lenses for speed work, and are not as useful as a slower lens. They are too large to be fitted on most hand cameras, and probably the only place the amateur will meet them is on the reflex camera, where they are very useful. These larger lenses require a very rigid front on the camera, much more rigid than is furnished on some fairly expensive outfits.

A reliable and accurate shutter is a necessity with a high-grade lens. There are available several between-the-lens shutters that are eminently satisfactory. The best are either of the sector type, in which three or more leaves fly through, making the exposure, or the iris diaphragm type, in which a diaphragm opens and closes. The former gives the higher speeds, but both types are excellent, and the range of speeds obtainable is sufficient for all except a very small proportion of the work of the average photographer. For higher speeds than can be obtained with most between-the-lens shutters the focal-plane shutter is used. This consists of a spring-operated blind with a slit in it that passes close in front of the plate. This shutter is very efficient at high speeds, and exposures as short as 1-2000dth of a second can be made. Most focal plane shutters, however, do not give a higher speed than 1-1000dth of a second. These shutters are rather deficient in the slower speeds. They rarely give more than 1-10th of a second; and if the camera is fitted with a focal-plane shutter, it is sometimes advisable to also have a between-the-lens shutter fitted to care for the slow exposures.

The foregoing covers about all the apparatus that is likely to prove useful. As to which is the most useful for the average person, who wants to take pictures at any time when the object presents itself to him, I think the small metal camera taking plates 1¾ x 2⅜ inches is most likely to prove satisfactory. It can be carried almost constantly, and will always be available. Any other camera will be left at home unless there is a special prospect of some interesting picture. It is true that these small cameras do not seem very popular as yet, but that is probably due to their high cost.

As to methods of working, there will be a few points to observe that are unnecessary in other work. As a distinct record is wanted, the use of as small a stop as possible is desirable. F. 16 or even f. 32 may be necessary when it is desired to have widely different planes short. Here the small camera and lens of short focus score, as the depth of focus is greater. Frequently, as in photographing machinery, there will be great contrasts of light and shade in the object photographed. Double coated plates will help. In fact, it is a good plan to use double coated orthochromatic plates all the time, and then one is prepared for about anything that can be photographed. Such plates do not cost so very much more than the common single-coated plate, and they will reduce the number of failures in most cases enough to more than offset their cost. Tank development of negatives is just as well in all cases, and is very desirable for the small negatives, to avoid the frilling of the film at the edges. In any case, handle the wet negatives as little as possible.

For the small negatives, contact prints should be on semi-glossy or glossy papers and burnished or ferrotyped to bring out all the detail. A glossy paper will also be desirable for the larger prints if there is much detail. The printing process is of course immaterial, provided it is suited to the negative. The busy man will, if he does his own work, find gaslight paper best, as it will let him work at night. For cheap records of large negatives blue-print is excellent.

Many of the smaller prints will make one desire enlargements of them. With the small cameras there usually can be obtained enlarging apparatus which utilizes the lens of the camera for projection. These outfits are frequently very convenient and allow of enlargements being made almost as readily as contact prints. Or any of the enlargers on the market can be used, or even a home-made outfit

The man who has once made and preserved records of the objects of interest connected with his business is not likely to give up the practice. It is surprising what a lot of inspiration and prosaic information can be mingled in a booklet of such prints. But the photographer must remember that the preservation of the records is as necessary as the making. If the prints are small, they can be filed in card index drawers, if they are mounted on fairly stiff cardboard. This is an excellent method, as new prints may be inserted where they belong without disarranging those already in place. If the prints are mounted in books, a good index should be started with the first print and religiously kept up to date. If the full value is to be got from the record, frequently it is necessary to write up the print at the time it is made. At all events, the date, and sufficient details of the subject to insure identification should be entered along with the print.

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EDITORIAL COMMENT.

THE ALBRIGHT EXHIBITION

WE are authorized to announce that the Photo-Pictorialists of Buffalo will not enter prints individually or collectively for the proposed international exhibition of photographs to be held at the Albright Gallery in Buffalo under the auspices of the Photo-Secession. We have also received unofficial information that many other prominent workers and groups of workers in the United States have no intention of participating in this show, and that few of them have been invited to participate. As the expressed intention of the authorities of the Albright Gallery at the time when the project for this exhibition was started by the late Dr. Kurtz, was to have a representative international show, it seems unfortunate that jealousies and difficulties should have arisen immediately after the official announcement of the exhibition.

It is not our purpose to excite dissension, and we regret most sincerely that such an exhibition cannot be held in the United States with the support of all our prominent pictorialists. It is an indisputable fact that Mr. Alfred Stieglitz has at his command materials for a most interesting photographic exhibition, and that the pictures which will be hung by the Photo-Secession will be well worthy of admiration and study. At the same time no one who visited the International Exposition at Dresden last year and viewed the pictures there displayed with an open mind, can fail to admit that the work of the Photo-Secession and the pictorialists likely to exhibit under its auspices does not present a satisfactory picture of the present standards of pictorial photography. There are other schools and other ideals than that represented by this most distinguished group, and it appears to us unfortunate that the authorities of the Albright Gallery should have delegated to Mr. Stieglitz and his associates the selection of pictures for this exhibition.

It appears to us still more unfortunate that Mr. Stieglitz, whose services to photography no man can deny, and whose artistic ability is beyond dispute, should not be broad enough to perceive the value of photographic work of artistic merit which does not conform to the particular style which is so characteristic of all exhibitions under his auspices. Half a generation ago this school was progressive, and far in advance of its time. To-day it is not progressing, but is a reactionary force of the most dangerous type. In other words, we may find in the history of the Photo-Secession, the same story which has occurred in all art movements. Ibsen once said: "A normally made truth lives to be about twelve, fifteen — at the most twenty years old." The new truths which the Photo-Secession saw some fifteen years ago have degenerated into formulas and have become a detriment to the progress of photography. The present generation in photography must go back to realism. Thus the cycle runs: Realism, classicism, impressionism, formalism, artistic death.

THE PRIZE-FIGHT FILMS

A MORAL wave seems to have swept the entire English-speaking world immediately after the result of the fight at Reno was announced. From hundreds of American communities came announcements that no exhibition of motion-pictures of the fight would be allowed. England, South Africa, India, and Australasia began movements to prevent the importation or exhibition of the pictures. Not only a general sentiment against prize fighting, but various aspects of the race question entered into the movement. Alarmed, the owners of the negatives, whose investment and prospective profits amount to hundreds of thousands of dollars, announced their intention to show the pictures irrespective of popular sentiment and to invoke the power of the courts to prevent any interference with their display. If they are well advised, they will reconsider this hasty decision. In only one American State could this prize fight be held, and there only adults could see it. It is absurd to suppose that communities which would not permit the fight should be compelled to endure a faithful presentation of all its brutality to which women and children would be admitted. Widespread agitation against motion-pictures because of fire danger and the suggestive quality of many films has been experienced by the industry and still exists in many quarters. A deliberate attempt to force these films on the community in defiance of the best public sentiment would certainly react disastrously on the motion-picture houses, and result in serious losses to the entire trade. It will be far better for the film manufacturers to pocket their losses than to awake legislative resentment, which might impose most onerous restrictions on all such entertainments.

THE COMPLETE SELF-INSTRUCTING LIBRARY

BEFORE it is too late, we wish to call the attention of our readers to the fast-disappearing chance to obtain this excellent reference work at a bargain price. Until the present edition is sold, we are offering the library to our subscribers of record at a discount of thirty per cent from the publishers' price. So many sets have already been sold that we expect to be entirely sold out by October first. As we write, we have but 957 sets in stock. Sixty days or less will see them all in the hands of satisfied purchasers. If you want the one indispensable and complete compendium of photographic information, ACT NOW, and write for full particulars to-day. The bargain price will soon be withdrawn.

CHANGE OF ADDRESS

WE have, as announced last month, removed from 6 Beacon Street to 221 Columbus Avenue, Boston. All communications should be sent to the new address, and we shall be very glad to see all our friends in our commodious new quarters.

AN EXCHANGE CLUB

WE frequently have requests from readers to put them in touch with those who are willing to exchange prints and photographic post-cards. We invite those who are interested in the matter to assist us in the formation of an exchange club for the purpose of exchanging pictures. We are formulating a code for exchange purposes which will allow full particulars to be written on a post-card in small space and which will be furnished only to members. This will enable them to distinguish between requests made by fellow-members and those made by outsiders. Simple rules must be signed by members, which will insure fair exchange and prompt returns. We shall endeavor to make the membership world wide, and thus enable our members to secure pictures from every clime. If you are interested in exchanging your prints with others, send us your name, and we will organize as soon as a reasonable number of members is enrolled.

OUR MONTHLY COMPETITION

PRIZES in the competition have been awarded as follows: —

First prize, "Child Study," by A. L. Princehorn. Second prize, "Aunty Jackson's Reverie," by J. P. Hambly. Third prize, "The Doctor's Buggy," by Henry Thew Stephenson.

Honorable Mentions: "The Cloud," by Beatrice Bell; "Within the Minster (Ely)," by E. J. Brookins; "Doris," by Mrs. Brookins; "The Breaking Storm," by Nathan Bushnell, Jr.; "The Love Letter," by E. B. Collins; "A Summer Shower," by J. Frank Curtis, M.D.; "Spring Moonrise," by William S. Davis; "A Winter Day," by Fred Doudna; "A Study," by Lewis J. Fitler; "The Day is done, and the Darkness falls from the Wings of Night," by L. W. Forgs, M.D.; "Far and Near," by Donald Grey; "The Brookside," by F. C. Irwin; "A Song of Long Ago," by E. H. Johnson; "Off Atlantic City," by T. W. Kilmer; "A Foggy Morning," by Elgin Lessley; "The Boy behind the Gun," by B. A. Mills; "Fleming's Falls, Ohio," by A. L. Princehorn; "Moonlight," by R. J. Shaw; "Mother and Child," by Clara Estelle Sipprell; "Homeward," by J. H. Stockton; "Poor Man," by S. Takehara; "Early Spring," by James Thomson; "The Approach of Fall," by Clarence F. Thornton; "Newsies," by G. Harrison Truman; "The Bather," by U. L. Upson, Jr.; "A Dutch Youngster," by Van Zanen.

THE BUDAPEST EXHIBITION

As we go to press, we are informed by the authorities of the International Photographic Exhibition at Budapest that the collection of American photographs has excited general admiration, and that the whole press has acknowledged that these pictures are the *clou* of the exhibition. At the time of writing the jury of awards had not commenced its work, but we hope to give its report in our next issue.

THE WIENER PHOTO-KLUB

WE have the pleasure of announcing to our readers that the principal feature of the September issue will be a series of magnificent reproductions by the well-known firm of C. Angerer & Göschl of Vienna, of a series of photographs by members of the Wiener Photo-Klub, probably the strongest camera club in the world as far as achievements go. The arrangements for this number were initiated by the editor in Dresden last summer, and have just come to completion. This club had anticipated exhibiting the American pictures, now in Budapest, in Vienna during the summer, but as the time of year is unpropitious and the pictures must be returned before fall, the exhibition has been abandoned.

ON THE SUBMISSION OF PICTURES

THE number of pictures reaching us each month has become so great that considerable confusion often arises as to the purpose for which such pictures are intended. Photographs submitted for publication, for competition, for criticism, arrive without any designation attached, and dissatisfaction is often caused by the fact that pictures are wrongly classed. In the future, therefore, we would ask our readers who send pictures for competition or for criticism, to distinctly mark on the back of each print the purpose for which it is submitted. We shall not undertake hereafter to criticize prints unless so marked, especially when they are submitted in the competition. No attention, will, therefore, be taken of a request accompanying, to criticize such pictures, unless they are distinctly marked "Portfolio" on the back of each print.

OUR PORTFOLIO.

Prints made by readers will be criticized in this department; none by mail. Prints should be addressed to Frank R. Fraprie, 221 Columbus Ave., Boston, Mass., and MUST be marked "For Portfolio" on back, whether sent for this department only, or for the monthly competitions as well. Only one print by any contributor can be criticized each month. An asterisk is prefixed to the criticism of reproduced prints.

639. A. D. Rice, Jr. — Your unnamed print is somewhat lacking in vigor, and as it appears to have good values, might be improved by somewhat longer printing. The picture will be considerably improved by trimming one and one quarter inch from the left, and a half inch from the bottom, which will greatly concentrate the composition.

640. C. F. Loebenstein. — "The Errand Boy." This is a very good photograph, and a very good picture of the little boy. The only suggestion we have to make would be that the white lines of the fence in the background be softened down somewhat, as they are rather glaring at present.

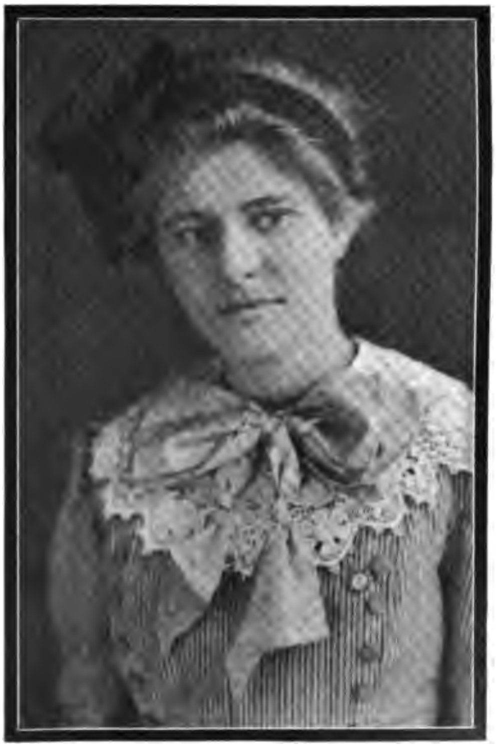
*641. Richard Pertuch. — Your portrait of a girl is a very excellent piece of work in every respect, and the presentation with its gray border is very commendable. We do not see how you could improve this portrait.

*642. F. G. Patience. — Your landscape shows most excellent technical work in every respect, and also a composition of very pleasing lines. We have nothing to say which might help you to improve work like this.

643. Mrs. E. R. Thordenberg. — "Sawing Wood." This photograph is too contrasty, the halation around the trees being caused by under-exposure and forced development. Four seconds' exposure at 9 P.M. is very short, as the actinic value of the light diminishes very rapidly after sunset.

644. Mrs. Vercia Louck. — Your picture of a roadside seems to be somewhat too flat. This is probably due to over-exposure and insufficient development. The bank of trees at the left is rather uninteresting, and we think that you might have a little more interesting picture if you should trim off two inches from the left and then a little from the right and top.

*645. Forman G. Hanna. — "The Cabin in the Mountains." We have nothing but praise for this picture. The values of snow, forest, and snow-clad mountains could not be improved. The position of the cabin in the print is perfect, and the lines of the path lead to it naturally and most delightfully break the foreground. The quality of your print is excellent, and it would make a most interesting enlargement..



641. RICHARD PERTUCH

646. W. H. Keheley. — "With Father." This unconstrained group taken outdoors is an interesting record of home life, but the print is both contrasty and

642. F. G. PATIENCE

somewhat too dark. Perhaps you can make a better print on a softer working grade of paper, but we fear the extreme contrast existed in the original negative.

647. **William S. McEwing.** — "Portrait of a Girl." This little picture does not appeal to us as a particularly good piece of photographic work. Either through motion of the camera or lack of careful focusing, the picture has a most disagreeable blurred quality, which is very trying to the eyes. The background is not sympathetic, and the vignetting is unskilfully done.

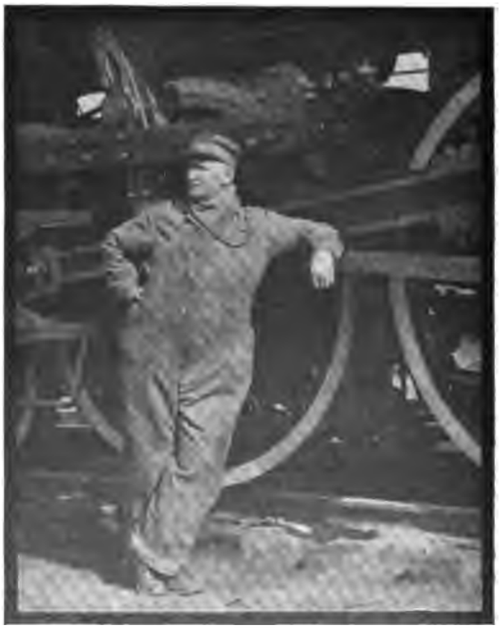
648. **A. M. Clay.** — As is apt to be the case, your woodland interior shows too strong contrasts. It would be improved by trimming a half inch from the right; and you should have seen, when taking the exposure, that the sapling in the foreground would obtrude unpleasantly into your print. This might easily have been removed at the time, but now makes a defect which cannot easily be eliminated. The little vista at the right is so clogged up in development that it gives scarcely a hint of the beautiful distant woods which probably were there.

649. **C. W. Cramer.** — This photograph of a potted fern on a little table shows evidence of careless manipulation in the blurred condition of the background, which may be due to a fault of the development of the negative or of the paper. The streak which you refer to in the upper corner of the picture is apparently due to a streak or bubble or other defect in the glass of the negative, or a scratch on the glass side. If you will look at your negative carefully you will probably find some such manifestation to be present.

650. **J. R. Murray.** — "On the Farm." This little pastoral photograph is pleasing and interesting. We would prefer to see it printed on a little less contrasty paper, but otherwise can offer no suggestion for its improvement.

*651. **Jules A. Bourquin.** — "Waiting for the Through Freight." This picture of the engineer in his working clothes leaning against the connecting-rod of his mammoth locomotive, is a most excellent piece of character study, and satisfactory in almost every respect. The background in this case is fully in keeping with the title of the picture, and although the details are well brought out, they are not too much accentuated and serve to carry out the story. The one thing which we would wish changed is the light coming through one or two openings near the top of the print. These spots should be brought down to a light gray, and you will then have a picture of which you may well be proud.

652. **Edward Fields.** — Your photograph of cows on a river bank shows an interesting scene, but your print of it might be better. You seem to have a number of defects in the negative, which could be obviated by careful handling. In addition, we would suggest that the ornamental corners of the mask which you are using do not improve the picture, and that a simple rectangular form is the best that you could adopt.



651. WAITING FOR THE THROUGH FREIGHT JULES A. BOURQUIN

645. THE CABIN IN THE MOUNTAINS FORMAN G. HANNA

653. M. L. McNeil. — "Baby's Photo." Baby seems a little bit frightened as to just what is going to happen to her, but she is a chubby little girl, and you have made a very good picture. The exposure seems to be about right for indoor work, and all in all, we think you have succeeded very well with this home portrait.

*654. C. A. Swoyer. — "Grandpa." This excellent portrait of an aged man reading shows excellent handling of dark and middle tones, the dignity of the pose is admirable, and the few high tones which you have employed make a most attractive space composition. We do not see how you could improve this portrait very much, as this is one of the few cases where details in the dark clothing would rather detract from than add to the picture.

655. H. A. Eriksen. — "The Old Cottage." While your material here is not in the highest degree pictorial, you have made the best of what you had, and have clothed a commonplace scene with the romance of flickering shadow and lush foliage. It is too bad that you had to have your foreground so light. Had it been a trifle darker in tone, and spotted with the shadows which evidently existed, it would have added much to the picture. We should say that your exposure had been rather too short, and a little more time would have made a much more harmonious picture than this, but this in itself is extremely interesting.

656. Burdette Harrison. — "The Ice Gorge." This is a most excellent piece of record work, and at the same time possesses considerable pictorial quality. The foreground with its dirty blocks of ice hardly afforded material for pictorial treatment, but you have certainly admirably handled the qualities which the scene possessed, and made a picture which is as satisfactory as could be obtained.

*657. E. A. Johnson. — "A Song of Long Ago." This is an interesting character study, well thought out and executed, and of considerable interest. The figure seems a trifle crowded in the space, and we think that more pictorial effect might have been gained had the camera been placed farther away from the sitter.

658. Walter L. Brown. — This landscape is too flat and confused in focus to secure our admiration. You have here in a high degree the very unpleasant effect produced by deliberately placing out of focus a light-spotted background; that is, every opening has been converted into a round bullet hole, as if the print had been peppered with shot, letting the light through. Between softness of focus and this strong blur there is a long gap. In arrangement the print is interesting, and we would advise you to try again, at this spot.

659. W. H. Boyer. — This picture of two young ladies leaning against the river bank is a good record, and shows careful and satisfactory handling of plate and paper. It possesses no pictorial interest, but is an excellent souvenir or record picture.

660. Geo. A. Nelson. — "Playing Ball." In your effort to stop motion you have under-exposed the plate. While you have a fairly satisfactory record, it would have been improved by a little more exposure.

661. Geo. N Baumiller. — "Fishing." This is a good record, but for pictorial purposes you have too

654. GRANDPA C. A. SWOYER

much material. Artistic handling of boys with fishing rods as long as these would be difficult, as the length of the white pole is so great as to overbalance any arrangement of the figure, and in consequence of these long poles you have included far too much of the surrounding landscape in your picture. A little more exposure might have helped.

662. **Fred E. Crum.** — "Hunter's Daughter." This piece of portraiture is of considerable merit. The head seems to us a trifle too large for the space, but the arrangement in the space is pleasing and satisfactory. The flesh values are also good, but the expression is too constrained and stern.

663. **S. Hamilton.** — Your print numbered one, a rather German-looking structure, overlooking a lake, is too flat. The foreground is a mass of foliage, without any separation of planes or structure. Possibly this was taken on a dull day, and a brighter atmosphere, with cast shadows, would probably have given you more satisfactory results. It is possible, however, that the sun was shining and the lighting uniform. In any case the result is a flat, characterless print.

664. **N. C. Hollawell.** — Your picture looking under the trees toward a lake is far too contrasty. A little more exposure and a little more water in the developer would have given you a much more harmonious negative and print. A pure white sky such as you have here is also evidence of falsification of values in the landscape.

*665. **A. W. Kessler.**—"Night on the River." This is a rather interesting night picture, or attempt at one, and carries out the feeling you have tried to convey, very well. The shadows do not have the inky blackness which we so often see in so-called moonlight pictures, but you have portrayed the transparency of shadows which really exists. The single criticism which we have to make is that your moon is many times too large. If you will look at the moon or the sun on the ground glass of your camera you will appreciate the truth of this statement, and know how to proceed to remedy this defect.

666. **W. N. Maule.** — "The Brook." This picture represents a rather attractive spot, but has the very common defect of amateur pictures, great density in the negative. Give full exposure, and use a dilute and soft-working developer, and you will get a very harmonious and pleasing picture at this spot. The values in the shadows in the water are pleasing, and evidently if the negative were not so dense, you could get an interesting print from it.

667. **C. W. Weir.** — "Along a Country Road." Your road runs straight into the center of the picture, and leads nowhere. Had you placed your camera to one side instead of directly in the middle, you might have made a much more attractive composition, even at this not very interesting spot. You should, however, not develop your negative so far, but give full exposure, and more water in the developer, getting a thinner and easier printing negative.

668. **E. W. Towne.** — "The Haunted Bridge." As a record of a spot commemorated by Whittier, this

657. A SONG OF LONG AGO E. A. JOHNSON

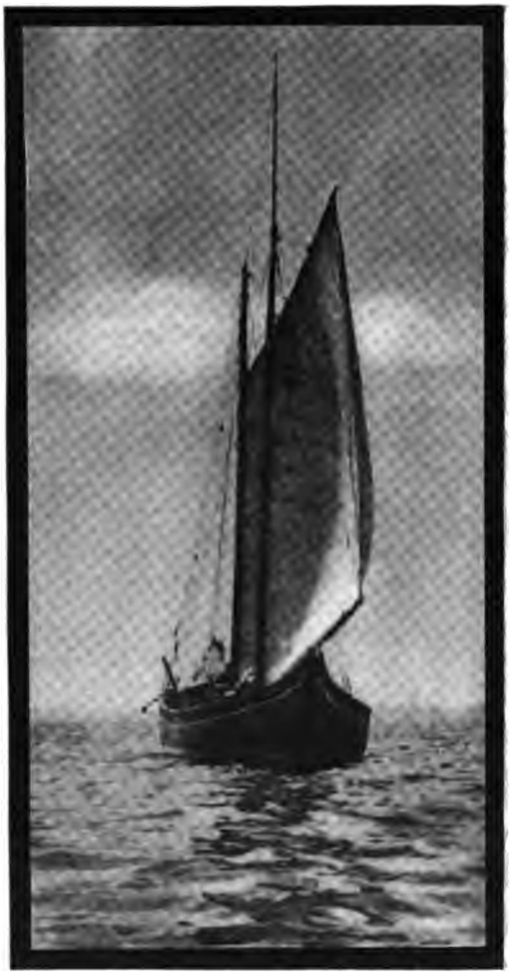
is well worth a photograph, although in itself of no particular beauty. You should, however, aim to make a somewhat less contrasty photograph. You seem to have given considerable exposure, as is evident from the motion in the leaves, but too much development has caused the negative to be contrasty and the print spotty. The arrangement is good.

669. E. B. COLLINS. — "The Love Letter." While this print is rather contrasty in its gradations, it is interesting and tells its story well. The radiating lines above the young lady's head are distracting and should be spotted out, and we would also suggest the elimination of the reflected face in the mirror. It is not large enough to have any real reason for existence, and is sufficiently strong to be an object of curiosity and distraction.

*670. J. H. STOCKTON. — "Homeward." This excellent marine received honorable mention in our monthly competition. The boat itself is excellent, and the clouds which have been worked in are altogether too woolly, however, and do not really resemble the cumulus clouds which it was your intention to suggest.

671. W. J. ADAMS. — "In Partnership." This little picture of two hens with their broods of chickens is rather interesting, if you had made a better print of it. The glossy printing-out paper which you are using, and evidently toning in a combined bath, is not a particularly permanent form of medium, and we would advise you to learn to use developing papers in preference. All of the prints which you send in are more or less stained and discolored, and do not show that you have fully mastered the process.

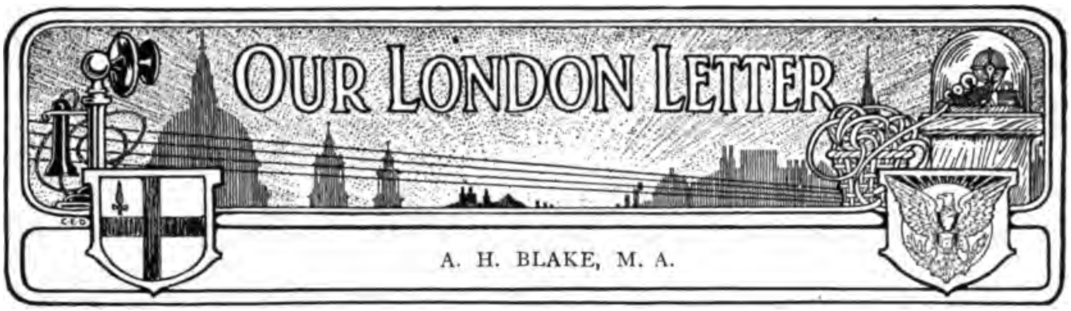
665. NIGHT ON THE RIVER A. W. KESSLER



670. HOMEWARD J. H. STOCKTON

672. U. L. UPSON, JR. — "The Bather." This picture of a youngster draped in a towel waiting at the bathroom door is an interesting little character study, and well worthy the sympathetic treatment which you have given it. Honorable Mention was awarded it in the competition.

673. R. T. HILL. — "Lake Lane." There is an atmospheric quality about this print which suggests that you have not obtained all that is possible from the negative. It seems to us that a little trimming might help this materially. Possibly removing three quarters of an inch or so from the top would make you feel more satisfied with the print. A little may be also profitably taken from the left-hand side, and the picture gains in distance if the first tree on the right is also cut off. The effect of light and atmosphere in the print is very pleasing.



OUR LONDON LETTER

A. H. BLAKE, M. A.

THE DEMACHY ONE-MAN EXHIBITION AT THE R. P. S.

IN addition to the two one-man shows of which I have already given some short account in these letters, we have now on view a one-man exhibition by M. Demachy of Paris; it will remain open till about the end of July and any American visitors who are over here will doubtless take the opportunity of seeing these pictures of which M. Demachy shows us far too few. Both in himself and in his works he offers us a great contrast to the two men, Alexander Keighley and E. O. Hoppé, who have immediately preceded him. He has that Gallic grace and lightness of touch which is a national asset, and in addition a thorough artistic spirit. No Englishman or American could have done these pictures just as Demachy has done them. They are all, with the exception of three frames of small work which are American reproductions for book illustration, in the oil process. He says that he cannot manage bromoil because he is too lazy to make the bromide enlargements whenever he might need to bromoil, but in a fit of activity he makes a set of enlarged negatives and lives upon them pictorially until they are exhausted. There are over fifty works upon the walls, and with a few exceptions they reach a high standard of technical and pictorial perfection; and yet, when all is said and done, whether it be due to the process or to the process not suiting the man's genius, the fact to my mind remains that the work of Demachy in oil is not so good, so light, so dainty, so true, and so convincing as in the gum process of which he was a past master. No one could touch him there; and those of my readers who remember those ballet girl studies after the manner of Degas, will feel that to beat them he will have to go a long way and to my mind he does not seem to have gone far enough at present. It will be no use going into details of the pictures, as my readers will not see them, but from these remarks they will be able to judge for themselves when they see reproductions. From the time of the Romans to the present day Africa has been said to be the grave of reputations, and the oil process seems to me to be the photographic Africa; it has not wrecked Demachy but it has not in my mind improved his work, and it has led him away from the process in which he was *facile princeps*.

FEDERATION OF PHOTOGRAPHIC SOCIETIES

WE are hearing a good deal on this side just now about the subject of the federation of photographic societies, and are seeing the strengthening of the movement as well as its initiation, in not a few districts. In what the difference between affiliation and federation consists it is not easy to say, but in this country at any rate as they exist amongst us there are one or two big differences. The body called the Affiliation of Photographic Societies, if the contention of the chairman of its executive be correct (and he is a lawyer and has gone into the matter very thoroughly), is not an independent corporation but a subcommittee of the Council of the Royal Photographic Society, deriving its delegated powers from that body and exercising such functions as that body may have conferred upon it. It is only the actually elected delegates who can attend a meeting of delegates, and they appoint a committee and chairman from their number who transact the business as the subcommittee of the Council. The position of a federated society is different. All the business is transacted at the meetings of delegates (any one can attend at any meeting as the delegate of a society who has been sent by that society) and practically the body of delegates form the council of the Federation, and the council is absolutely independent, having no official connection with the R. P. S. I may be wrong, but that is the situation as I have been able to gather it. Which movement will grow most in the future remains to be seen, but I have given the two constitutions as near as I can, for the benefit of American readers who may be desirous of profiting by our experience in combining their photographic societies for common action.

"PHOTOGRAMS OF THE YEAR"

THIS *resumé* of the year's work, we are told, is to be issued earlier this year than ever before. We have been told this every year for longer than one cares to remember, but this time I believe that it is not a cry of "wolf," but that the first selection in prints for illustration is already made, and that on reading this notice any one who has not sent prints and who is desirous of submitting them, should send off at once. It will be common knowledge that the firm of Messrs. Dawburn & Ward over here have been amalgamated with the very old established firm of Routledge & Sons of 68 Carter Lane, Ludgate Hill, London (where prints should be sent to H. Snowden Ward). This will not only result in the publication being enlarged but in its scope being wider and its influence greater. As before, Mr. Snowden Ward will be the writer of the general critique, aided by the specialists on the work of the different countries included in the review.

BROMOIL PRINTS AT GRIFFIN'S RENDEZVOUS

WE have on view at the present time a selection of Mr. F. J. Mortimer's bromoil prints at the Rendezvous at Griffin's in Kingsway. As my readers are aware, there is no more able exponent of the bromoil process than the man who gave it its name, and who has done more than any one else to improve and increase its powers for pictorial purposes. Mr. Mortimer is one of the few men on this side who can absolutely play with this process and bring off prints in a high key, dainty and convincing, at will, while others seem bound to the heavy and impenetrable shadows characteristic of the process in most cases. These heavy shadows must not be blamed to the process, since Mr. Mortimer can forego them at will. He has just made some considerable improvements in the bromoiling mixtures, especially in the direction of portability and convenience. It is time that some enterprising person arranged for a one-man Mortimer bromoil show to tour the States and show my readers of what the process is capable in expert hands.

THE LONDON EXHIBITIONS

SOON after this letter is in the hands of my readers we shall be hard at work both at the Royal and London Salon Exhibitions, selecting and hanging the work. I am sure I hope that in both my readers will be fully represented, but in case of disappointments it must be remembered that the space in both exhibitions is severely restricted. Perhaps the Royal will be able to hang at most something just under two hundred, while at the London Salon about one hundred and thirty will be the limit. While such drastic selection makes for high-class shows it certainly must weed out all but the very best; and often good work which could hold its own in any average exhibition will have to be excluded. If the exhibitions demonstrate nothing else this year, at any rate they will show the high-water mark of the pictorial movement as it exists to-day.

CORRESPONDENCE.

This column is open so far as space will allow for the expression of readers' opinions on subjects of general interest. The Editors are not responsible for opinions thus expressed.

PHILADELPHIA, PA., July 6, 1910.

To the Editor of AMERICAN PHOTOGRAPHY:

Sir, — Replying to your notes of the 28th ult. and 5th inst., in regard to the photographic exhibition to be held in Buffalo, there is no disposition on the part of the members of the Photographic Society of Philadelphia, so far as I have learned, to take part in that exhibition. The first information that we received, as to that exhibition, was through a printed letter from the Director of the Albright Gallery, stating that: "To ensure the best possible representation, the arrangements have been placed in the hands of that organization which has done the most to promote this particular branch of art, — the Photo-Secession"; that "Its distinguishing characteristic will be the group system," and that those *not* of the Photo-Secession will have a "group exhibit of the work of Americans WHO HITHERTO HAVE NOT HAD THE OPPORTUNITY OF BEING ADEQUATELY REPRESENTED IN AN IMPORTANT EXHIBITION." These words are so plain as to require no comment. There are many Americans who *have* shown in important exhibitions, in this country and abroad, including those in art museums (if that be the criterion), who not only do not belong to the Photo-Secession; have not suggested connection with that body; but who would greatly prefer to keep their independence, even if asked by the Secession to come into their fold. The suggestion that those not of the Secession are of a different class is not an agreeable one, to put the matter very mildly indeed. My reply to this circular letter was to the effect that our Society would not participate in the exhibition except by invitation of the Director of the Gallery, and on terms of absolute equality with those of the Secession, — making its own selections, having its own section, etc; that our Society had been so frequently identified with important exhibitions, — the several Philadelphia Salons and others, — that its members could not consent to enter the exhibition in any other way; and could not, under any circumstances, acknowledge the terms of the circular letter, by classing themselves as among those who had not had the opportunity, etc.

This letter was most courteously acknowledged, both by the Director of the Albright Gallery and the Director of the Photo-Secession; the latter stating that whatever success the Photographic Society may have had was due to former members, now members of the Photo-Secession. The letter of Mr. Stieglitz was an admirable statement of his view of the matter.

I have been one of those who, for a long time, have wished that all "politics" of pictorial photography could be buried, so that all America might work together for the highest and best, without division as to party. I saw no impropriety in assuming a position as spokesman for all photo-pictorialists independent of the Secession, for two reasons: That I believed that I had the confidence and support of those who wished to be independent; and because my relations with the Secession have been of an amicable character. I therefore, in my reply to the Director of the Secession, covered a larger field than the question as to the Photographic Society, and made this suggestion, — that, as the Albright Gallery and the Secession itself desired contributions from the independent workers for the Buffalo exhibition, it would be a good plan for the Secession to unbend from its attitude toward other pictorialists, and to show a willingness to join with them in their exhibitions, proposing the most stringent rules that he and they pleased, in order to keep such exhibitions up to the highest possible standard; that such disposition and action on his part would really help the cause, — the professed object of the Secession, — greatly. Briefly, my meaning was this, — unless you show a willingness to join with us and aid us in our exhibitions, you can hardly expect us to join with you and aid you with yours, particularly under the terms, which are not agreeable, of the Buffalo invitation.

Up to the present time, there has been no acceptance of the very reasonable suggestion; and, for very evident reasons, I do not see how any independent pictorialist who believes that he has had a fair measure of success so far can do the undignified thing of accepting the terms of the circular by classing himself with those described in it. It will also be evident that, if the independent pictorialists fail to send any work for the exhibition, it does not necessarily follow that there are no artists in photography outside of those associated with the Photo-Secession.

This answer to your inquiries is not intended as a criticism, either of the Director of the Albright Gallery or of the Director of the Photo-Secession. The show at that Gallery will be a Secession show, pure and simple; and I have no doubt that it will be a good one. That it is apparently impossible to get the Photo-Secession to join in other exhibitions than its own is most unfortunate, both for us and for them; for I believe that an exhibition of pictorial photography of "all America" would be a revelation, not only to the independent workers, but also to the members of the Secession. Yours very truly,

WALTER ZIMMERMAN.

OUR TABLE

Material for examination and books for review may be sent to Frank R. Fraprie, 221 Columbus Ave., Boston, Mass. Any book reviewed will be supplied by our Boston office at the price mentioned.

THE ASSOCIATION ANNUAL, 1910. Photographers' Association of America, Milwaukee, Wis.

The Annual this year is the most attractive publication of this nature that the P. A. of A. has ever gotten out. In size it is relatively enormous, the pages being 9 x 12 inches, and thereby affords a magnificent setting for the numerous large half-tone reproductions by well-known professional photographers. The text matter is a symposium entitled "Attracting Custom to the Studio," and giving the views of a large number of successful professionals on business methods. The typography and paper are of the highest quality, and all in all the book, which is printed in three colors, is most attractive, and one which will be prized by every member of the association.

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Jahrbuch der Dresdner Gesellschaft zur Förderung der Amateurphotographie, E. V., 1910.

This attractive volume is the annual published for its members by the Dresden Association for the Advancement of Amateur Photography, a most progressive organization, which numbers between two and three hundred members, including almost all of the prominent persons connected with the science and business of photography in the Saxon capital, a well-known center of photographic manufacturing. It contains a large number of very excellent reproductions of prints made by the members, and several original articles on photographic topics, as well as a list of the members of the society. From the financial report appended to the book we learn that the society has a surplus of over 3000 marks, after writing off twenty per cent of the value of its furniture and library for depreciation in the year 1909. Would that our large American cities could show photographic clubs as prosperous as this.

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Faces and Phases of German Life. By Theophilus Liefeld, former American Consul at Freiburg, Baden. New York, Fowler & Wells Co., 1910. Price, $1.50 net; postage, 10 cents.

The author of this book, from many years of German life, was able to note many peculiarities of law and custom which lie without the observation of the average traveler, or even the man who lives in Germany for a limited time. The result of his observations he has told in pleasing fashion in this book, which is written in the form of a series of short stories about various characters, all of whom he met in real life. To each of these stories he has appended chapters on German customs and habits, which elucidate the incidents described. The book is an interesting and valuable addition to the literature on Germany.

* * *

The Boston Museum of Fine Arts. Giving a descriptive and critical account of its treasures, which represent the arts and crafts from remote antiquity to the present time. By Julia de Wolf Addison. Boston, L. C. Page & Company, 1910. Price, $3.

Mrs. Addison has done for the Boston Museum what Mr. Prayer did for the Metropolitan Museum, made a readable and interesting book in which the collections of the museum are considered with relation to the history of art. While the book in a sense is a handbook to the museum, it is fully as much a preparation for the satisfactory study of the objects therein contained, because it gives a general insight into the conditions surrounding the creation of these objects, and their relation to artistic endeavor and achievement. The book is most attractively illustrated with sixty-five photographs of objects displayed.

* * *

Susan in Sicily. Her adventures and those of her friends during their travels and sojourns in the garden of the Mediterranean. By Josephine Tozier. Boston, L. C. Page & Company, 1910. Price, $2.

This is the latest volume of The Little Pilgrimages Series, and is a worthy successor to "Among English Inns" by the same author, published in this series several years ago. The book is written in the form of a series of letters, and describes most attractively travels in the beautiful island. Although there are many descriptions of Sicily to be had, this is different from from any of them, is written in a free and vivacious manner, yet with careful observation, and because of its semi-fictional form, is easily read, and will hold attention better than a straightforward book of pure travel description.

* * *

Les Produits photographiques, Propriétés, Essai, Alterations. Par L. Mathet. Une brochure de la Bibliothèque de la Photo-Revue. Paris, Charles Mendel, 1910. Price, 25 cents.

The photographic image is the result of chemical reactions, consequently it depends on the purity of the substances which are used. From beginning to end of his operations the photographer must constantly look out that he is using pure and fresh products, and must know how to decide whether his chemicals are performing their proper work, or whether they have lost their value. The author of this book shows the reader the simplest ways for discovering the purity of the principal photographic chemicals.

* * *

Le Photo-vitrail simplifié. Par L. Tranchant. Un volume de la Bibliothèque de la Photo-Revue. Paris, Charles Mendel, 1910. Price, 25 cents.

Although the application of photographs permanently to glass by means of fusible enamels has been known for many years, it is a process which has been almost lost sight of in recent times. The author of this book desires to bring back to attention these almost forgotten processes, and so in the eight chapters of this book he shows how photographs may be transferred to glass and burnt in, either by the carbon process, or by the dusting on of metallic oxides, or by collotype. The book shows a useful and attractive way of decorating the home, and should be of value to our French-speaking readers.

* * *

The Photo Crafts Shop, Racine, Wis., carries in stock a large and attractive line of papers and cardboards of various colors, surfaces, and weights, suitable for photographic mounting. In this line is included every color of mounting paper which is necessary under any circumstances to attractively set off a photographic print. The line also includes a number of very beautiful sorts of paper, — white, buff, and cream, — which are suitable for coating, for gum, kallitype, and similar processes. We believe that a complete line of samples and prices will be sent on application to any of our readers.

* * *

The J. M. Hamilton Camera Co., of Waterloo, Ia., has an interesting little catalogue of cameras, which they will be glad to send on application. Their prices are reasonable, and their quality high. Their specialty is a post-card camera, using a plate which covers the entire surface of the card without a white margin.

* * *

The photographic chemicals and specialties of the firm of Schering have long been known in Germany under the trade-mark "Satrap." With the increase in the line of photographic specialties carried by the New York house of Schering & Glatz, this trade-mark has been imported, and the picture of the bearded Assyrian will probably soon be familiar to all camera workers in this country. The firm has just published a book describing the use of their developers, and also the varitone tablets, and we note in this book has been reprinted an article published in our department "Practical Hints" last April. The book will be sent free on request to any of our readers, who may address Schering & Glatz, 150 Maiden Lane, New York, N. Y.

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The Seneca Camera Mfg. Company, Rochester, N. Y., has ready for distribution its annual catalogue. The cover of this attractive booklet is one of the beautiful Indian pictures, which for several years have made these covers so attractive, and which have led to their being framed in many cases as ornaments for the den. The catalogue contains a full description of a most attractive line of cameras, calculated to fill every possible want of the camera user. An excellent list of accessories is also catalogued, and many reproductions of the work of their cameras are included. It will be sent free on application to any of our readers.

* * *

We have received from Messrs. Schering & Glatz the following description of their new developer, Nerol, or Diamidophenol hydrochloride, a rapid developer without alkali, which develops with sodium sulphite only, thus avoiding frilling and the caustic action on the skin.

Nerol is a white micro-crystalline powder, which on standing for a long time assumes a grayish color, which does not, however, affect its developing qualities in any way.

Its solutions are stable for a long time, if kept in well-filled and tightly corked bottles, but it is recommended to prepare them freshly as needed.

Nerol is quick in action, yielding vigorous blacks and purest whites, making it especially useful for developing Bromide and Gaslight Papers and Solar Prints.

The following formulas are recommended for Nerol:

Normal Solution. Water, 32 ounces; Soda sulphite, dry, ½ ounce; Nerol, 40 grains.

If scales are not available, take 32 ounces of water, 3 leveled teaspoons of soda sulphite, dry, and 1 leveled teaspoonful of Nerol.

As a retarder, a solution of potassium bromide (1:10); and as an accelerator, a solution of sulphite of sodium should be used.

Thirty Minute Tank Developer. Water, 64 ounces; Soda sulphite, dry, 150 grains; Nerol, 30 grains; Potass. bromide, 10 per cent solution, ½ ounce.

For Lantern Slide Plates. Water, 32 ounces; Soda sulphite, dry, 30 grains; Nerol, 10 grains; Potass. bromide, 10 per cent solution, 10 drops.

For Bromide Papers. Water, 32 ounces; Soda sulphite, dry, ½ ounce; Nerol, 80 grains; Potass. bromide, 10 per cent solution, 30 drops.

For Gaslight Papers. Water, 32 ounces; Soda sulphite, dry, 1 ounce; Nerol, 80 grains; Potass. bromide, 10 per cent solution, 80 drops.

As with Metol or Satrapol, the density should be judged by transparency only.

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As evidence of prosperity and successful business methods may be mentioned the fact that a large new building is being erected by Burke & James, manufacturers and jobbers of photographic supplies, at the northwest corner of East Ontario Street and Fairbanks Court, Chicago, Ill. At the East Ontario Street entrance an imposing vestibule finished in Italian marble leads to the central stairway. The structure will cover 194 x 100 feet, and was acquired through the Bowes Realty Company. Twelve years ago the firm employed eight persons in a small room and now it has three factories at West Jackson Boulevard and South Desplaines Street, where two hundred persons work.

The cut shows the attractive frontage of the new building.

A NEW LENS CATALOGUE. — Write for the new illustrated catalogue issued by the Rodenstock Optical Works of Munchen, Germany. Copies can be had from the American Agency, Jas. Frank & Son of Augusta, Ga. The new catalogue contains numerous testimonials from professional workers all over the country and shows the growing popularity of the new anastigmat lens, "Eurynar."

* * *

WELLINGTON papers and Euryplan lenses are, as our readers are aware, handled in this country by Ralph Harris & Company, 26 Bromfield Street, Boston. To increase their facilities for supplying their customers in New York and the adjacent territory, they have opened an office at 108 Fulton Street, New York, in charge of E. F. Keller, where a full line of photographic goods, as well as their specialties, will be kept.

* * *

WITH THE CAMERA. — Notes from the Illinois College of Photography and the Bissell College of Photo-engraving, Effingham, Ill. We have just received copy of a Korean newspaper with a fine write-up of Mr. Ralph Leigh and the engraving plant he has established at Seoul, his native city. Mr. Leigh was a student of last year. Mr. J. E. Blacet, student of 1906, now with the Capitol Engraving Co. of Springfield, made us a visit last month looking for additional help. A set of the new Cramer color filters was added to the equipment of the Three-color Department last week. Mr. Peterman, demonstrator for the Eastman Co., gave a demonstration and talk before the College Camera Club the 5th inst. explaining the new Eastman polychrome plates. We have just received a letter from Mr. Aram Dildilian of Marsovan, Turkey, student of 1906. He and his brother have the leading studio in that city and have established a wide reputation. Mr. Dick Godfrey, of 1909, who is with the Reading Engraving Co., Reading, Pa., is doing well, and has been made foreman of the plant.

* * *

THE well-known firm of George Murphy, Inc., 57 East Ninth Street, New York, has just issued a new descriptive price list of photographic materials. This bulky catalogue contains almost three hundred closely printed pages, listing thousands of different instruments and articles which may fall within the needs of the professional or amateur photographer. There is no want of the camera user which is not anticipated in these pages, and the book is a handy reference volume of supplies and prices which should be on every photographer's work table. A copy will be sent on request to any of our readers who will send ten cents to defray the cost of packing and mailing.

* * *

THE thirty-ninth building to be erected at Kodak Park is nearing completion and within a short time the Eastman Kodak Company will begin work in the largest dry plate factory in the world.

Work on the excavation for the new building began over a year ago. The new building is 356 feet long, east and west, and 348 feet long north and south. It has a total floor area of 5¼ acres. It is three stories high along one elevation and two at another. The irregularity in structure is due to the fact that the building is erected to fill particular needs and is built in order to best fit the purposes of manufacturing dry plates.

The exterior walls are of brick, but these are in reality but curtain walls, the actual structure being reinforced concrete. Three thick fire walls separate the building into sections.

While the thirty-ninth building at the park, it is "No. 36" on the Eastman map. This numbering is due to the fact that the buildings are numbered in groups.

* * *

MR. A. H. BLAKE, who is well known to our readers by articles and his regular "London Letter," is a most ready and entertaining speaker, as will be testified by all who have the pleasure of his acquaintance. He is also an authority on picturesque London, having for many years photographed the interesting sights of the great city under all possible conditions. From the wealth of illustrative material at his command, he has selected lantern slides for five interesting lectures on London, at various epochs, which he is giving with great success before English audiences. We hope that another season he will follow the example of some other English lecturers, and give us the pleasure of a visit on this side of the water.

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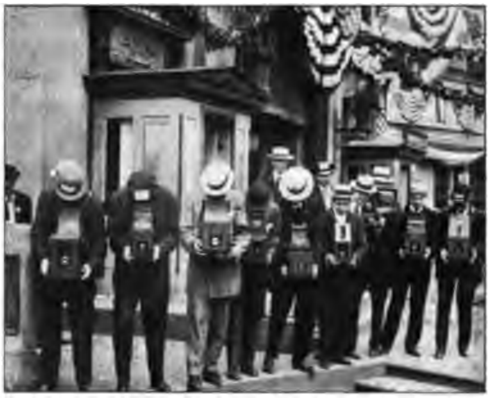

THE half-tone shown above is a picture of some of the newspaper reporters who were on the ground when Colonel Roosevelt arrived, June 18. Most of them, it will be noticed, wear their police passes in their hats, and Graflex Cameras are also very much in evidence. It is very apparent what the newspaper men like in the way of speed cameras.

SOCIETY NEWS.

The Postal Photographic Club, Monthly Bulletin. — The Album for July, 1910, was issued June 16, 1910. It contains thirty-one prints. At latest advices the Albums now *en route* were located as follows: Album for March, 1910, at N. Y. City; Album for April, 1910, at Boston; Album for May, 1910, at Burlington, Vt.; Album for June, 1910, at Elmira, N. Y.

Awards of certificates for prize-winning prints are announced; namely, to Mr. C. F. Clarke, of Springfield, Mass., for print No. 30, entitled "Mrs. C., Sr.," Album for December, 1909, Artistic Merit No. 1; and for print No. 11, entitled "My Winter Girl," Album for January, 1910, Technical Merit No. 1. To Mr. Lewis J. Fitler, of Sayre, Pa., for print No. 25, entitled "A Flower of the Fields," Album for December, 1909, Technical Merit No. 1. To Mr. C. S. Luitwieler, of Newton Highlands, Mass., for print No. 1, entitled "An October Sunset," Album for January, 1910, Artistic Merit No. 1.

Please forward the Albums promptly. In no case should they be retained for a longer period than three days. It is of the highest importance that all the Albums now *en route* (including the July Album) should be in the hands of the secretary before October 1. It is contemplated to make a change in the route list, commencing with the Album for October, and unless all the Albums now *en route* are home before the date mentioned, it will not be practicable to effect the change until the lapse of a year. In any case where there is a probability that a member will be absent from home when Albums are due to arrive, timely provision should be made for forwarding the Albums without loss of time (see By-laws, No. 9).

G. A. Brandt, *Secretary.*

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At the annual meeting of the Chicago Camera Club, held at the club rooms, Northwestern University Building, 87 East Lake Street, June 2, about twenty-five members being present, the following officers were elected for the ensuing year: President, George C. McKee; vice-president, C. B. Hale; secretary-treasurer, H. A. Langston (re-elected). Directors, E. F. Oyster, H. H. Hyde, F. M. Tuckerman, W. F. Willis.

The position of assistant secretary-treasurer was also created and Mr. G. Sohn appointed to fill same.

The annual report of the secretary-treasurer showed the affairs of the club to be in prosperous condition.

A number of improvements have recently been made, among them being the installation of an autochrome room and a Cooper-Hewitt light for portraiture. During the summer months a school of photography will be established, with competent instructors, and nothing will be left undone to stimulate interest in the advancement of the art.

* * *

The Fifth International Congress of Photography will be held at Brussels, from the 1st to the 6th of August, 1910. Previous meetings of this body were held in Paris in 1899 and 1900, in Brussels in 1891, and in Liege in 1905. This meeting will surpass in importance those previously held, and is expected to be attended by the most prominent photographic investigators of all countries in the world. The International Committee of Patronage comprises almost all of the well-known workers on photographic subjects, including a number of Americans. Any of our readers who may happen to be visiting the Brussels Exposition at that time should certainly endeavor to attend the sessions of the Congress. Membership costs 10 francs.

* * *

The First Exhibition of the London Salon of Photography will be held at the Fine Arts Society's Galleries, 148, New Bond Street, London, from September 2 to October 7. The American pictures may be sent mounted, but unframed, should be directed to the Hon. Secretary, London Salon of Photography, The Fine Arts Society, 148, New Bond Street, London, and must reach him not later than August 23. Entries must be made on the regular entry blank. Probably American pictures by those who have not received a blank will be submitted to the jury in spite of this failure.

* * *

The Columbus Camera Club has been succeeded by a new society called the Photographers Club, which has purchased quarters at 21 North Front Street, and taken over the equipment of the old club. The officers are as follows: A. L. Kidd, president; Adolph Keller, vice-president; C. L. McKibben, secretary; and Warren G. Hunt, treasurer. All amateurs in Columbus are eligible, and more than sixty members have already joined.

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At the annual meeting of the Elysian Camera Club held at the rooms 307 Washington Street, Hoboken, the following officers were elected for the year: Conrad Peterson, president; Albert Harrass, vice-president; Julius Nelson, treasurer; Charles Westerberg, secretary; Harry Fischer, librarian; Charles H. Miller, chairman of house committee; Martin Crane, chairman of printing committee; Henry Peters, chairman of admission committee. The officers also compose the board of managers.

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An amateur photographer's club has been organized by enthusiasts in Carthage, Mo. Meetings will be held on the first and third Tuesday of each month. W. C. Robins has been elected president, and H. A. H. Smith, secretary.

* * *

At the annual meeting of the Portland (Me.) Camera Club the following officers were elected: President, H. A. Roberts; vice-president, George E. Fogg; secretary and treasurer, O. P. T. Wish; lantern slide director, H. A. Peabody; executive committee, A. P. Howard, Ernest Gebhardts, John R. Peterson, John Calvin Stevens, H. A. Peabody, E. E. Cheney, W. J. Hayte, Frank Laing, E. Roy Monroe; membership committee, G. E. Goff, John F. Gould, Albert E. Neal. The club has joined in a body the Portland Society of Art, and will be known in the future as the Portland Camera Club Photographic Section of the Portland Society of Art.

* * *

Newark Camera Club. — The club has recently issued a booklet stating that Monday night is club night and the door is always open to any one interested in photography. A list of members, nearly sixty in number, is given. The present officers are: Thomas Elsum, president; F. Oscar Race, vice-president; H. Wright, Jr., treasurer; W. S. Norris, secretary. Once a month on Monday nights the club exhibits a set of the American Lantern Slide Interchange slides, which affords considerable entertainment.

* * *

An exhibition of the prints of the June Competition was held by the Detroit Camera Club, June 7, at their club rooms. Mr. Wheatley, an artist of years' experience, criticized and judged the prints.

The subjects for this month were "Marines" and "Landscapes with Figures." "Moonlight," by J. E. Scott, was given first award, and W. B. Wilcox's "Sailing" took the second. These pictures will be properly labeled and hung in the club rooms.

A Monthly Competition has been started by the club, and all prints entered in this competition are exhibited for a short time and then judged by a competent judge.

The club is enjoying its new quarters, situated at 6 Adams Avenue, W., overlooking the Grand Circus Park, and on account of this situation the members like to come to the rooms.

C. J. Schauer, *Secretary.*

PRACTICAL HINTS

Original short articles and discoveries are desired for this department, and $1 each will be paid for such as are accepted and published.

Adapting a Small Film Pack to a Large Camera. — I recently exchanged my 4 x 5 inch camera for a 5 x 7 inch size, but soon found that the cost of my pictures had increased considerably. I have often noticed views which would not do justice to a 5 x 7 inch size negative, and instead of using that size and cutting it down afterward, I decided to work out a plan whereby I could take a smaller picture with the same camera. I chose the 3¼ x 5½ inch size for this purpose, and I find that the idea is far superior to the "kits" now on the market for the following reasons: The plan I have permits me to change from one size to the other at will, and it also puts the smaller picture in the center of the camera opening, thus getting the best part of the lens in my work and also making it easier to use for "snap-shots" when using the finder without the ground glass. The "kits" do not possess all of these features.

First, I bought a 3¼ x 5½ inch film pack adapter (a Korona), and as my camera is a 5 x 7, I also bought an old plate-holder slide of that size, and made it narrow enough to go into the 3¼ x 5½ inch adapter, without shortening it. I then bought some mahogany of the same thickness as the adapters, and of sufficient length to build a frame around the smaller adapter and of sufficient width to completely close up the camera opening. In other words, I built out the sides and ends of the smaller adapter to make the outside dimensions the same as the 5 x 7 adapter. I attached the strips to each side and at the closed, or left, end of the adapter, by means of small wire nails and glue, lapping each corner of the frame to add strength and to aid in excluding light. I then fitted the strip to the right end, where the slide goes in, lapping the corners as before. Before fastening it in place, I slit down the end strip with a hand saw to allow the long slide to pass through the strip into the regular slit in the adapter, and then shortened the slide to make it fit. A wedge was placed at the open end of the slit afterward, to close it up, down to the slide edge. The hook used to hold the slide in place was then taken off the small adapter and placed out on the edge of the frame. I then cut away the frame a little on each side, to allow the fasteners holding the film pack in place to work, glued and nailed the slitted end piece in place, flowed hot beeswax into all cracks to exclude light, ebonized the frame, and the job was finished.

To aid in focusing, I marked with a lead pencil the exact size of the inner picture on the center of the ground glass.

This little convenience cost me $1.65 and about six hours' work, and I am well pleased with it. —F. W. Rowland.

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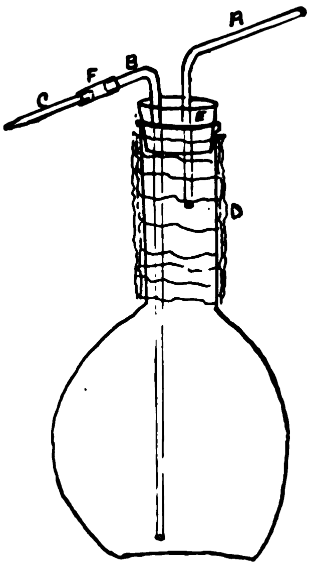
Local Washing of Carbon Prints. — By the use of a wash-bottle, such as is used by chemists in washing precipitates, a stream of water at any temperature and with any force may be directed on small areas of the print, the print being supported on a sheet of glass. Holding the print far enough away so that the jet breaks into drops, the successive impact of these gives a particularly good reducing action on the pigment. I imagine (though not a worker of the process) that gum-prints could be lightened in the same way — the stream of water, unlike a brush, not forcing dissolved pigment into the pores of the paper. To make the wash-bottle, a Florence flask is fitted with a two-hole rubber stopper E, through which pass bent glass tubes A and B. To B the tube C, drawn to a jet, should be attached by rubber tube F. The glass tubes are easily bent by means of a fish-tail gas-burner, heating them till quite soft, before bending, so as to make gentle curves. The neck of flask should be wrapped with a piece of woolen cloth to protect hand when using hot water.



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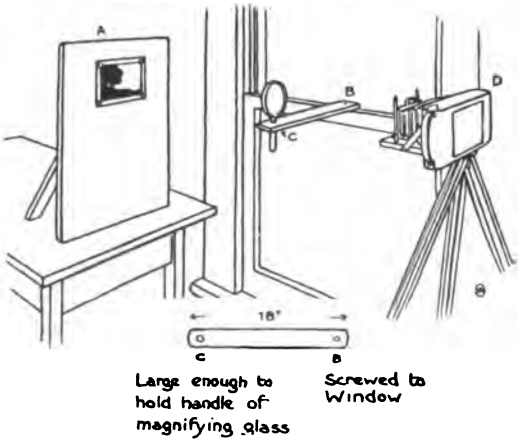
How to Copy a Photograph. — It sometimes happens that the amateur wants to photograph another photograph or small picture, such as a magazine illustration. It is hardly possible to do this with the ordinary camera not fitted with a proper lens, although one can photograph large paintings. But by this little scheme, the amateur can copy any fairly clear photograph or illustration. Fasten the picture to be copied on to a board, such as a drawing board, as A in the illustration; have the board about at right angles to the window. With a screw fasten a small piece of wood, about 18 inches long, to the window, as indicated at B, so that the hole C will be about 18 inches from the photograph on the board. The hole C must be



large enough for the handle of an ordinary magnifying glass to slip through. A glass about 3 inches in diameter is a good size to use. Set up the camera about the same distance from the glass as the glass is from the photograph. After moving the wooden arm holding the glass backward or forward and sliding the camera along until the image is focused on the ground glass clearly and distinctly, we are ready to take our picture. Unless one is a good judge of the time and light necessary for a good inside exposure, it is well to take several pictures of different exposures. Try the first one 3 seconds, the second 5 seconds, and the third about 9 or 10 seconds. This is generally time enough, unless it is a very dark day. With a little practice, one can take photographs in this way at night also. With a 4 x 5 camera, very good photographs can be taken of pictures as small as 4 x 5 or even 3¼ x 4¼. — C. H. Hadley.

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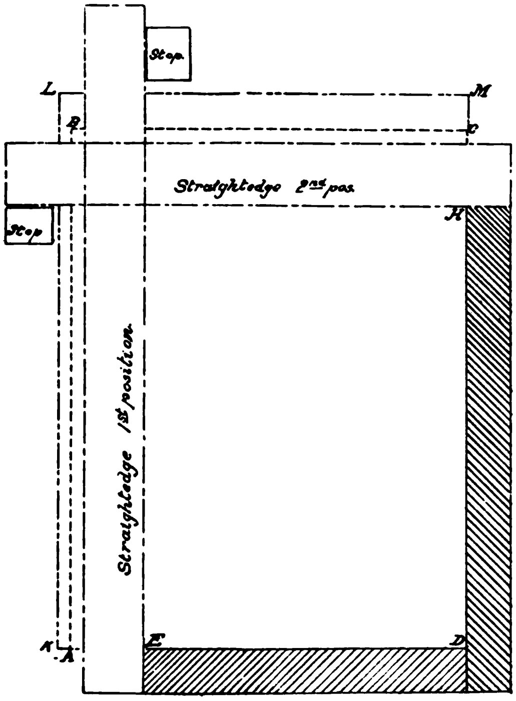
Plate Cutting Frame. — Recently I had to cut down some 4 x 5 plates to size 9 x 12 cm., and I made a frame for that purpose. I will give a description of the frame, for the benefit of such readers as may want to cut plates. For plates of a medium size, a piece of smooth planed wood 1 foot square will be sufficient. Upon this nail two strips of wood at right angles to one another (HD and ED), ⅜ inch wide and ¼ inch thick. The length of these strips is determined by the size of the plate after cutting. For a straight-edge use a piece of wood, both edges of which are planed smooth and are parallel; size ⅜ x 3-16ths inch thick and long enough to reach from the "Stop" to outside edge of ED. They should be placed on a line with ends of ED and HD, so that a right angle will be formed at E and H. In the diagram KLMD represents the plate before being cut and ABCD after cutting down. Now it will be seen that length of HD = length of plate, less ⅜ + ⅛ inch (⅜ inch width of straight-edge and about ⅛ inch margin between straight-edge and line of cut). Some glass cutters leave less margin. A piece of black paper may be glued in at KLMD. Do not hold the plates over the frame when breaking the strip off! With a little practice anybody can manipulate this frame in a dark room. — Frank H. Starr.



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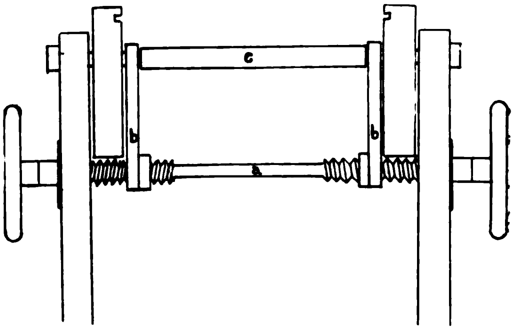
Clamp for Tilting Camera Bed. — The following is a description of a tilting camera bed clamp that I had made. "a" is an iron rod having threads cut on each end, the threads on one end being right handed and on the other end left handed. "b" "b" are two iron bars about ¼ inch thick, having nuts brazed onto one end, threaded to fit the threads on the rod "a," and holes in the other end to pass over the axle "c." A piece of gas pipe was placed on the axle between the bars "b" "b" to keep them from sliding to the center. Hand wheels were fitted on the ends of the rod "a." If this clamp is put in the frame after the frame is put together it will be necessary to turn the rod "a" down between the threads to allow the bars to slide to the center while placing the rod in position. This clamp enables one to fasten the bed at any angle from either side without going to the other side to tighten the other clamp. — Emmett K. Emslie.



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How to Photograph a Window Display. — Many merchants — and many photographers, too — find it almost impossible to take a picture of window displays, owing to the reflection of the buildings across the street shining on the window panes, sometimes obscuring entirely the view of the objects inside the window. There is a way to overcome this difficulty — namely, to make a curtain of black muslin, which should be somewhat higher and wider than the size of the window to be photographed. A hole is made in the curtain large enough for the lens of the camera to "see through." When this curtain is raised and extended on both sides the camera, the reflection is cut off, and pictures may be taken with little trouble.

Of course, the sides of the curtain are attached to two poles, which two assistants hold upright while the negative is being exposed by the photographer.

In daytime photographing the right time of day must be chosen in order to get the greatest amount of light in the window. Professional photographers usually choose the early morning on a clear day. This, however, must be left to the judgment of the man who takes the picture. The length of strips out of which to make the screen can be determined by taking the poles out on the walk and observing how much is necessary to shut out reflections. Black lining cambric or black calico will serve the purpose, and is not expensive.

If the windows are strongly illuminated by artificial light, and the pictures taken at night, from ten to twenty-five minutes will bring out the greatest amount of detail. People passing on the street will not interfere with such a picture, unless there is a continual crowd. No one should be allowed to stop between the camera and the window during the exposure. If the store or windows across the street are illuminated, these lights are very apt to reflect on the window pane and result in marring the photograph.

In order to secure a perfect photograph, the show window lighting should at all times be concealed and should be located in the upper part of the window near the window pane. All the shadows on the goods are then clearly defined and this contrast between the high lights and shadows will give a perfect picture. Open lights in the window have a tendency to blur the photograph. — *Commercial Bulletin.*

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SOFTNESS IN PRINTING. — Perhaps one of the greatest differences between professional and amateur portrait photography is the noticeable hard effect that nearly all amateurs are unable to overcome. A portrait may be well lighted, the exposure may be perfect, the details of the photograph may be beyond criticism, yet the average amateur will still notice that his portraits are harsh compared to the delicate finish of the professional man. For many years I have been an amateur photographer, and during that time I have had a very great many troubles, but of all my failures I consider that the most occurred in connection with my attempts at photographing what seemed to me the impossible, namely, a sitter (generally selected with much difficulty and many appeals to various members of my family); yet try as I would I was always rewarded with the hard effect on my finished portrait. Of course I am speaking purely of an amateur, and I hope this hint may induce others to take the tip. Personally I work with a Brownie No. 2, for the obvious reason that my pocket won't allow a better camera. I have equipped myself with a portrait lens which is absolutely essential in work of this nature with a Brownie, and also an enlarger; the latter is not so important, but is always an advantage, and is by no means money thrown away. The average photograph may be taken (with a portrait lens attached) from three to three and a half feet away; this will produce as good a picture as possible from any small camera. Now my tip is this, nothing, I'm afraid, elaborate, no chemicals are required, no solutions, but merely to reverse the film and print with the glass side in instead of the usual way.

Nothing could be more simple. Why not try it?, and I am sure you will agree with me that beyond reversing the position of the sitter it improves the portrait distinctly, taking away the harder element that, as I have already mentioned, spoils many a good amateur portrait. — CONWAY BUNNETT.

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A PHOTOGRAPHIC SCRAP-BOOK. — I save my copies of AMERICAN PHOTOGRAPHY — so do you, and so does everybody else who knows a good thing — and in it I have an unbeatable collection of photographic data for ready reference. But because the information is scattered and as I do not care to trust my choice volumes to the uncertainties of the dark room, I have prepared a scrap-book of the various formulas and processes arranged under convenient headings. Thus under "Developers" might be grouped the various formulas given in the magazines, Cramers' *Manual*, Hammers' *Little Book*, the Agfa and Buroughs-Welcome pamphlets, etc. It is convenient to arrange this data under sub-heads, as, — "Developer for Snap-shots," "Developing Moonlight Effects," and so on, as your needs dictate. From the pamphlets I cut the data in question and paste into the book; in the case of magazines which I do not wish to mar, I copy the essential part of the article directly into it. With an index in the front of the book, desired information can be found almost instantaneously, and it is surprising what a quantity of valuable data is accumulated in a short time and placed at the disposal of the worker. Doubtless this idea could be worked out as a card system to advantage, and enlarged to any extent with more convenience than in the form of a book. — A. E. SWOYER.

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PRACTICAL HINTS ON EXPOSURE. — Imagine, for a moment, that your eyes represent the lens of your camera and the eyelids the shutter. Suppose you are indoors and are doubtful about an exposure. You are not sure whether or not a snap-shot will properly record your picture. Stand facing the objects to be photographed and close your eyelids for a moment or so. Now, open and shut your eyelids as fast as you can. Remember what you have seen and this is about all your sensitive plate or film will record if you "snapshot" the objects. Try the same thing over again by closing your eyes. Now open them and while looking at the objects to be photographed begin to count seconds until you see all details distinctly. You are now experimenting on what is termed "Time Exposure," and you no doubt can readily understand, from this simple experiment, that it is utterly useless to expect to record on a sensitive film or plate objects that cannot be distinguished by the sensitive, human eyes and shutter-like eyelids. Actual time exposures might be accurately figured on the above basis, but it is not my desire now to lead you farther into my experiment. I simply want to show the beginner, by simple experiments, the reasons why "Time Exposure," "Time Development," and the like, are stepping-stones to success if you will but figure them out for yourselves. — CLAUDE DAVIS MILLAR.

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A GOOD WAXING SOLUTION. — The formula is as follows: Spirits of turpentine, 6 ounces; white Japan drier, 4½ ounces. The white Japan drier cannot be procured absolutely white, and while the light brown colored drier will be satisfactory, it must be borne in mind that the whiter the drier, the better it is. The method of applying the waxing solution is as follows: Sprinkle the fluid on the print and rub in with cheesecloth. Prints treated as above, especially in the rough and medium rough surfaces, will have all the brilliancy of a carbon.

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HARDENER FOR THE HYPO FIXING BATH. — Water, 40 ounces; sulphite of soda (crystals), 6 ounces; powdered alum, 16 ounces; acetic acid, 40 ounces. Add the ingredients in the order given and shake the mixture well until all is completely dissolved.

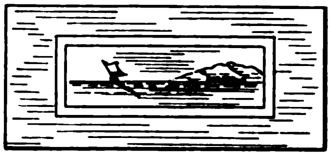
Add of the above 16 ounces by measure to every gallon of hyposulphite of soda solution testing 70 to 80 on the argentometer (silver solution hydrometer). The hypo will clear up beautifully. The solution will remain clear a long time and can be used continuously until a precipitate begins to form, when it must be thrown away and a new solution be prepared. — F. C. BEACH.

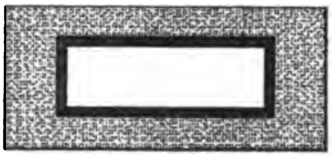
RECENT PATENTS.

Abstracted by F. C. Beach. Copies of any of these patents may be obtained at 10 cents each from Munn & Co., Patent Solicitors, 361 Broadway, New York City.

May 31, 1910

960,192. PHOTOGRAPHIC PRINTING DEVICE. TRUSSIE A. PATTON, Cabool, Mo.

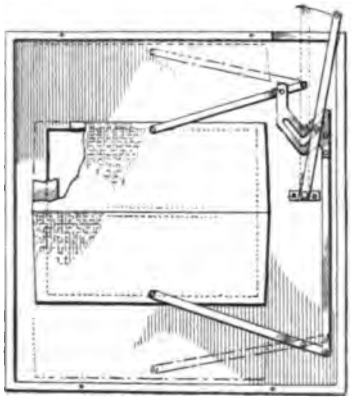




The particular feature of the device is a two-part shutter of transparent non-actinic material in light frames, operated to open and close by pivoted levers by the movement of a single lever in horizontal direction. A pin on this lever traverses a V-shaped cam groove in the connecting bar between the two halves of the shutters, causing them to open and close. Springs draw the shutters together. They are arranged to fit over the front of a printing frame or a permanent window, slightly inclined, for exposing.

June 7, 1910

960,301. PHOTOGRAPHIC PRINTING MASK. JOHN R. FITZ, JR., Philadelphia, Pa.



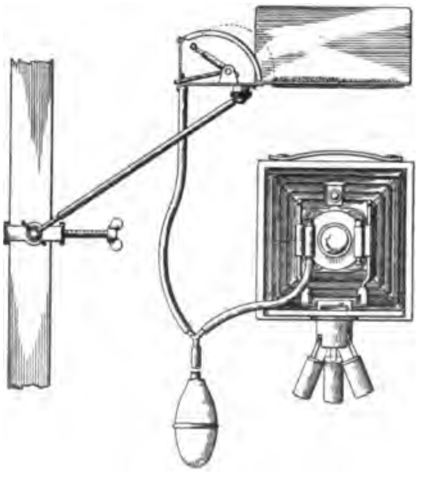
The upper illustration shows the completed picture, within a white square, and a shaded outside mat all made at one operation of printing by means of the special mat shown in the lower picture. The special mat has an opaque border around the inner square while all outside of that is semi-transparent like a sheet of tinted or colored celluloid which may be colored a light yellow color and be slightly semi-actinic. The mat is laid upon the negative in the printing frame, then the sensitized sheet over that. The back is clamped in, and the whole is exposed to the light until the picture is printed out. The opaque border on the mat prevents the light from passing through, but the semi-transparent colored mat beyond allows the light to act slightly on the paper and darken it just a little, making a pretty-looking framed picture. Mats of different tints can be used for securing varied effects. The advantage claimed is that two different printings are avoided.

960,939. COLORED PHOTOGRAPHIC PRINT AND MAKING THE SAME. Frederic E. Ives, Weehawken, N. J.

In his specification Mr. Ives states that his last method is an improvement over the one described by him in 1894 in the *Journal* of the Camera Club, whereby he omits the use of celluloid films and now substitutes a film of amylacetate of collodion in place of celluloid. This new film is coated with a solution of bichromated fish glue as a sensitizer, and when it is dry is stripped from glass support and is exposed with the back side of the film against the negative for about two minutes in the sun.

By immersion in running water for a few seconds the print is developed, leaving a relief print (very low in relief) which can be tinted in an aqueous dye bath for a few minutes, such as a solution of neptune green for a peacock blue print, a mixture of rhodamin and eosin for a crimson pink print, and brilliant yellow for a yellow print. When dried, the finished color film prints are superimposed in register between glasses to make tri-chromatic lantern slides and may be projected in the lantern as natural color pictures. Putting the colored print on paper is a separate method not fully perfected. This method was explained in July American Photography pages 413 and 414.

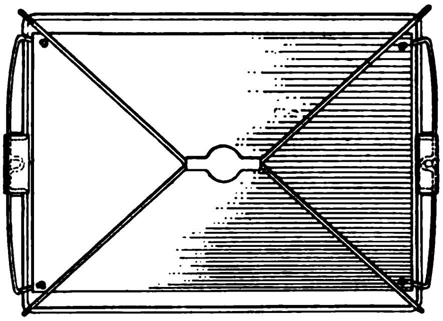
961,021. FLASH-LIGHT ATTACHMENT FOR CAMERAS. Siegmund Roesner, Chicago, Ill.



Above the camera is a flash-light pan, showing the flash powder distributed along the bottom; the pan is supported upon an adjustable arm or rod affixed to a movable upright arm. To the left end of the pan is arranged an ignition device supporting a match holder, this being seen at an angle to the left holding a match, under a curved roughed surface, pivoted at its left end. A pneumatic tube depends from the piston at the left end of the ignition device and joins the main operating bulb shutter tube. When the bulb is compressed, the camera shutter opens first, then the catch is released on the pan by the action of the air through the branch tube, which allows the spring on axis of the match-support shaft to act and throw the match quickly over to the right under the lighting surface. As the match is ignited, it falls into the pan, ignites the flash powder and makes the exposure.

June 21, 1910

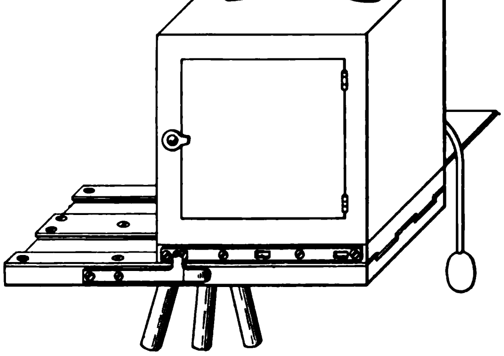
961,808. FILM SPREADER AND HOLDER. Oliver Sherwood, New York, N. Y.



A rectangular wire frame supports at each end a spring bow-shaped film holder, whose ends pass through the corner of the film and hold it by their hook-shaped form. Above the wire frame is the holder frame, secured to each corner of the main frame. As the holder frame wires meet at the center, they are clamped together and form sort of a handle by which the whole may be lifted up or stood on end for drying. It is a simple, light arrangement, and is adaptable for holding more than one film at a time.

June 28, 1910

962,844. ATTACHMENT FOR CAMERAS. Charles W. Kaufmann, New York, N. Y.



The attachment consists of a compound base board to be secured to the usual tripod head by the tripod screw. The upper part of the base board is slidable latterly in the lower half, and carries a screw stud to screw into the socket in the base of the camera the same as the usual tripod screw. Or the screw stud may be omitted and the base of the camera be secured to the movable head by a side set screw against metal flanges projected upward from the edges of the movable head. The object of this movable tripod head is to enable the camera to be shifted laterally to take stereoscopic pictures with one lens. After the first exposure is made, the camera is moved laterally on the head slightly, then a second exposure is made of the same object. When the negatives are developed and prints mounted, a stereoscopic print is produced, observed with the same effect as if two pictures were made with two lenses.

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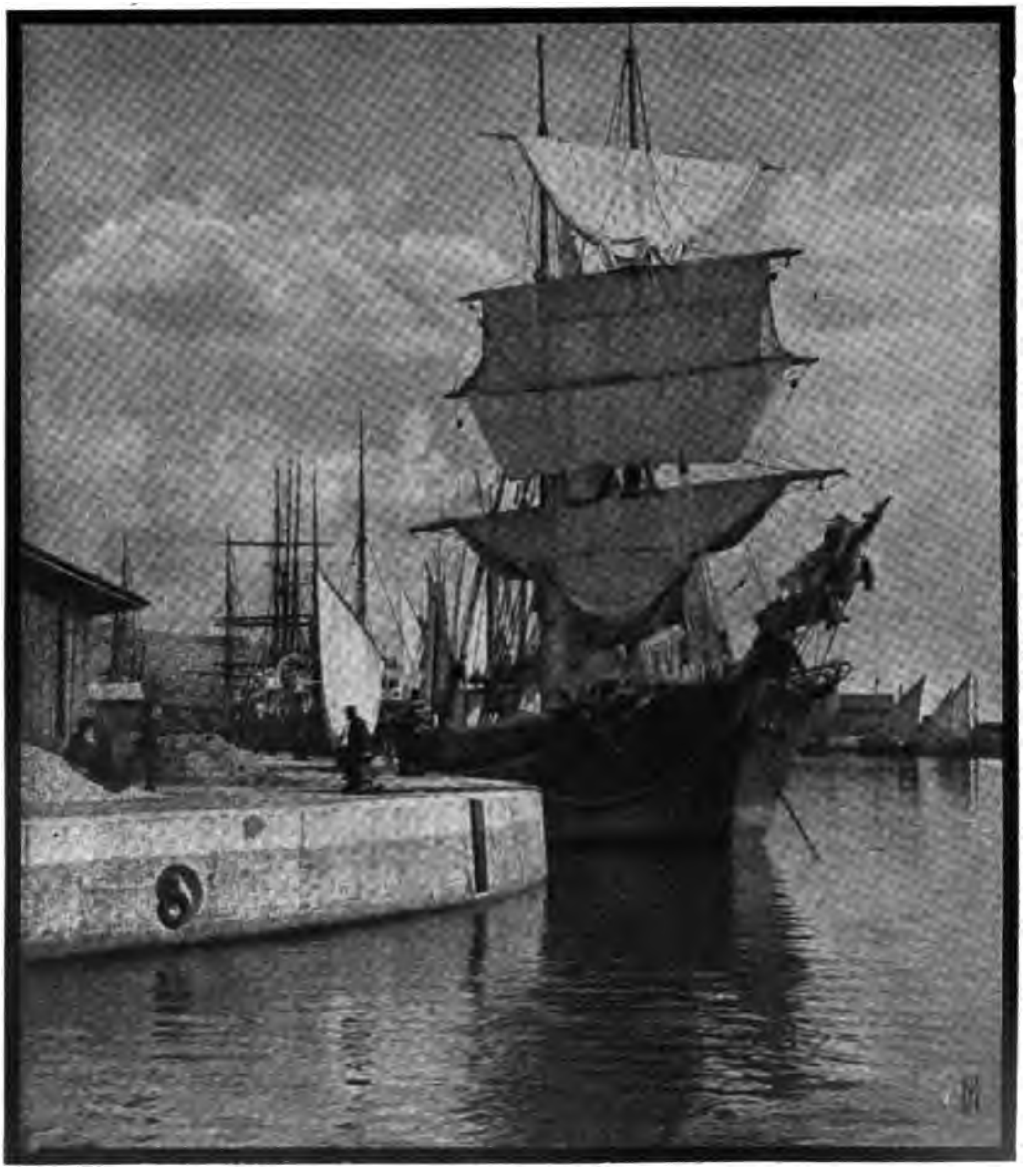

IN THE HARBOR OF FIUME H. I. R. H. ARCHDUCHESS MARIA JOSEPHA, VIENNA

Wiener Photo-Klub

THE PHOTO-KLUB OF VIENNA

F. R. FRAPRIE, F. R. P. S.

IN presenting to our readers this month the beautiful series of reproductions by Viennese workers, it occurs to us that members of photographic societies in this country might be interested in the facilities offered by this progressive club. We therefore give a few details as to its organization and facilities.

The Wiener Photo-Klub, which was founded in the year 1896, has as its object the progress and spread of photography, the education of its members in all processes, both technically and artistically, the encouragement of social intercourse among its members by providing a club home, and the provision for mutual use of all equipment which may serve as an aid to photography. Through the energetic work of its members the club has obtained a very proud and prominent position socially, artistically, scientifically, and technically.

In recognition of its achievements, it has been honored by Her Royal and Imperial Highness the Archduchess Maria Josepha, who has consented to act as protector, and also by His Excellency the Lord High Steward August Altgraf zu Salm-Reifferscheidt, who is its honorary president.

The club occupies for the furtherance of its purposes two stories in a house at Franz-Josefs-Kai 3 in Vienna, which furnishes very large working and club rooms. The studio is extremely large, offering comfortable seating accommodations for two hundred and fifty persons, and in this on every Monday and Friday lectures for both beginners and advanced photographers are held. In this room are also held the club meetings. The studio is fully equipped with all modern apparatus. It contains two studio cameras, and a large copying camera, with a number of fast anastigmats of all focal lengths, by Goerz, Steinheil, Voigtländer, Zeiss, and other makers, as well as two copying cameras for lantern slides and small enlargements. In addition there is a separate room with electric arc, in which enlargements may be made up to four feet square. There are also special arrangements for the making of transparencies by artificial light. The six dark rooms are furnished with the necessary lighting arrangements for all kinds of development, especially for autochromes.

A separate working room is provided for modern printing processes, particularly gum printing, and this is furnished with a drying closet heated by gas, several washing tanks, and copying apparatus with electric arc light of extremely high candle power for working in the evening and on dark days, which permits printing of negatives of any size in from five to ten minutes. A very large number of lockers are provided in the anterooms.

A technical instructor, with assistants, is on duty in the club every day from nine until seven. He is always at the service of the club members for advice and information, and is also prepared to do photographic work of every kind for the members at low rates, fixed by the directors of the club. In addition to this, at all times, old and experienced club members are prepared to give beginners instruction and assistance.

The principal series of lectures and lantern slide projections is given on Mondays by the most eminent scientific and artistic photographic authorities. Fridays are devoted to a beginners' course in charge of an especially accomplished and well-known photographer, and this course is repeated several times each year. In both summer and winter club excursions are often held. The club holds annually a large exhibition of the works of members, and smaller private club exhibitions of different kinds are often held, with especial reference to the needs of beginners. Besides the rooms enumerated, the members have access to several finely furnished sitting, smoking, and reading rooms, as well as a large club library. After the meetings of the club lunch is served, either in the club rooms or in some restaurant in the neighborhood. A porter lives in the club house for the service of the members.

HOMEWARD KARL PROKOP, VIENNA

Wiener Photo-Klub

Both ladies and gentlemen are admitted to membership. They are divided into several classes:—

(A) Life members, who pay a minimum fee of about $120 once for all.

(B) Ordinary members, who pay dues of $12.50 per year. Professional photographers and photographic dealers cannot become members of this class.

(C) Associate members, including those not eligible as full members, whose dues are $9.00.

(D) Supporting members, who pay at least $2.50 per year. These have the right to admittance to the meetings of the club, its exhibitions, and its excursions. They are not allowed to use the working rooms.

(E) Non-resident members, who pay $1.60.

In addition the club has honorary and corresponding members who are chosen by the directors.

Those desiring membership must be introduced by members or by the directors. It is usual in the latter case to appear several times at the club as a guest before being proposed. Admission is through a ballot of the directors. Active officers and military officials are excepted from this rule, and may be admitted as members to the club at the request of the military authorities without a vote.

THE ELEMENTS OF NEGATIVE MAKING

JAMES A. SINCLAIR, F. R. P. S.

(A lecture delivered before the Royal Photographic Society of Great Britain.)

SOME of our friends feel it is a little out of place for the R. P. S. to discuss such elementary subjects as the principles of negative making, but personally I think it an excellent thing to go back to genesis. Nowadays we are all becoming so clever that we are in danger of forgetting essential first principles. The artist relies on his feeling rather than his drawing; politicians solve financial chimeras without studying the laws of exchange; and we fall back on processes to create prints on paper in which the intervention of a negative seems almost impertinence. But so surely as the aviator who neglects the law of gravation, will forcibly make contact with mother earth, so will the artist, or politician, or photographer, find his work is without lasting effect if he neglects to build on the solid foundation of fact.

Therefore it is as a photographer, with a strong sense of the value of photography as a handmaid to the arts and sciences and industries, that I initiate this discussion on negative making; I have nothing new to say or show, but can only remind you of such truisms as are to be found in every text-book, collated and brought into order by the light of personal experience.

I sometimes wonder what sins I have committed in a previous incarnation; at least it must be for them, that I have to see sometimes hundreds and sometimes thousands of negatives during each week of my existence. Now amidst all this mass of good silver and good gelatine and good glass or good celluloid there is but a small percentage showing first-rate technique. It is true that most of these negatives are on films and taken with a hand camera, facts which to some people conclusively prove the causes for bad work, but in reality the causes must be sought elsewhere, and we shall consider them in due course.

What is a negative? It is, speaking generally, an image in silver on a transparent support in which the relations between light and shade of the object photographed are usually inverted, and the elements which go to its production are the most wonderful and entrancing of phenomena; in fact most of us have so much enjoyment in making negatives that we often fail to get beyond that stage. I am sure there are many hearing me to-night who have hundreds of negatives of quite excellent quality which have never yet been printed. Personally I quite envy the beginner in photography the joy of developing his first plate, to see the gradual growth of the image in the developer, his anxiety about how far to carry the operation, and the pleasure with which he hails a probably under-developed result when it is removed from the fixing bath. None of these operations have ever lost their charm and interest for me, and I must confess that the modern methods of developing tanks, useful as they are, seem to remove the personal touch which gives the subject such undying interest.

Thanks to unrestricted competition, the manufacture of the modern dry plate has been brought to such a pitch of perfection that practically there are no bad plates. All of us have our favorite brands whose characteristics suit our own particular manner of working or our favorite developer. Some prefer a plate with a short range of gradation, others demand one with a long range of gradation, some say that perfection can only be obtained with a slow plate — these are generally the plate makers who find them easier to make — and others cannot get a plate sufficiently rapid for their work. Then, again, there are those who must have color-correct values, and others who think that possibly greater truth of effect can be obtained with a plate that emphasizes color contrast rather than reproduces exact values in monochrome. For all these diverging interests plates are made, and the perfect technician can get good negatives on them all, although possibly not of the nature demanded for his special work.

RED DEER IN WINTER BARON ALBERT VON ROTHSCHILD, VIENNA

Wiener Photo-Klub

You all know the commercial plate with its creamy surface looking not a whit different after exposure than when placed in the camera. It always seems remarkable that light for a fraction of a second should so upset the condition of the silver that it is amenable to chemical influence in a varying degree.

In dealing with this subject it is necessary to consider the instruments used for making negatives, for much glass or film is wasted by imperfect tools.

As for the camera, any box or chamber that does not admit light to the plate excepting during the moment of exposure and through the lens will suffice for our purpose. Every photographer fancies he is working with such an instrument, but a large percentage are far from perfect, an actual maker of cameras is the only man who knows how difficult it is to make a camera light-tight. We learn that light travels in straight lines, and are apt to forget that it will go round many corners, all of course due to reflection. In the first case it may quite conceivably find entrance at the lens flange. The flange may be screwed carefully on the camera and may be recessed, but the best wood in the world will warp and get out of plane, and then the camera front which was safe last year causes trouble when taken out for a new season's work. Then the velveting of the rising front may wear and light again finds its way into the instrument. A fruitful source of trouble will also be found with old slides that are out of plane and do not fit tightly against the back of the camera, and the fronts of changing boxes are equally liable to this defect. Celluloid shutters at the front of dark slides, if more durable than common vulcanite, are cheaper than good vulcanite, and particularly liable to give trouble. They get out of shape and keep valves open, they shrink and don't fill the orifice in the slides. Test your camera carefully each spring by putting an electric light inside it in a dark room and see if any light can be seen after waiting for a few minutes.

Apart from light affecting the plates through imperfect dark slides, trouble is sometimes caused by emanations from the wood itself, and this may be greatly minimized if not entirely prevented by using a celluloid black for the inside of the slides. Without this protection, I fancy that, quite apart from any natural and prejudicial attributes in the wood, the oil used for French polishing may itself be the cause of the trouble, not that it directly reaches the plates, but the emanations from it gradually pass through the pores of the wood and thus affect the sensitive plate. The celluloid varnish fills the pores of the wood and tends to obviate the trouble.

One other warning on the matter of light must be given. Some makes of folding cameras are fitted with shutters, the blades of which are of thin vulcanite. These are sufficient for all practical purposes, but care should be taken not to carry the camera with the sun shining on the shutter while it is in close proximity to the plate or film. Many spoiled films are due to this cause. No trouble is caused if the camera front is kept extended.

So much for the camera. We need not discuss details of construction of the host of models now on the market, but I would submit that simplicity is desirable, and that it should be light-tight is essential. Nor will we discuss lenses. Some prefer anastigmats and others lean towards diffusion of focus; all the various points advertised by the makers have enthusiastic advocates; and providing we have a lens without "flare" with the diaphragms properly marked, all may suit our turn.

Shutters, however, are a more important matter, and I must confess to a feeling of disbelief in the speeds marked on them; and in this defect the largest makers are the biggest offenders. Why shutters should be deliberately marked with fictitious speeds is a matter past my comprehension and must have the strongest condemnation. If a lens maker marked his lens f. 5.6 and gave us one working at f. 8 we should have something to say; but the shutter, which is equally important, is fitted with a dial which tells us a frigid, and quite unconscious, lie whenever we consult it. I am sure it would not be to the disadvantage of makers to engrave speeds say within twenty-five per cent of accuracy. As things are, whenever we are told that a particular photograph was taken in a certain fraction of a second, we are given no real information, for our informant might as well say "in the twinkling of an eye."

Now let us to the dark room. Most dark rooms are too dark or too light. The ideal room shuts out all white light and has plenty of safe light, that is, safe for the particular plate that is being developed. My preference in the way of illumination is a large lamp with a diffusing safe light, and which can be altered for various kinds of plates or papers. Each has his own preference on such matters, but it is very desirable in any case to use artificial light, and not daylight passing through colored media. Daylight is most uncertain, as its intensity alters from moment to moment. Excellent safe lights of different grades are now issued by Messrs. Wratten, Sanger Shepherd, and the Ilford Co. If these are not available, two thicknesses of ruby fabric will be found a good substitute for rapid and yellow-sensitive plates, but shun as the plague the ruby glass sent out in the usual commercial dark room lamp.

Let us now consider the question of plates and films. For perfect negatives plates are undoubtedly the best. I quite admit the value of films to a large, and one of the most deserving classes of the community, namely, the makers and venders of cameras, for not only do these worthy people sell the cameras and films, but more often than not "do the rest," to their joy and contentment in life. While anxious not to say anything which would diminish the income of the photographic supplier, yet I must affirm that films have not the same average quality of plates. The reason for this is at present a mystery. An emulsion coated on celluloid has not the same life as has the same emulsion on plates. I put forward a theory for films which may possibly be worthy of attention. Every one who has used celluloid films is aware of the frequency with which they show evidence of electric action, particularly in dry weather. I remember on one occasion making a journey down the Adriatic in a hot and dry season, and on that occasion had films packed in tins. It was difficult to get a film out of the tin without a flash of light, and only by withdrawing them very slowly and

THE MIDNIGHT SUN AEMILIUS HACKER, VIENNA

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breathing at the same time on the surface to moisten them was I enabled to obviate this trouble. My theory is that the tension between the gelatine and celluloid causes electrical action. Generally speaking this is latent, but if prolonged it may quite conceivably upset the inertia of the film in the same way as light and consequently produces fog on development. Of course, films must sometimes be used by travelers where plates are an impossibility, but for very hot or very cold climates I have often said that weight for weight a traveler will do better with plates than films — a pretty bold assertion, but the correctness of which I have learned from experience. In temperate climates fresh films may be used when plates cannot be procured, and of course much excellent film is made. This society has on two occasions given me a medal for photographs, the originals of which were taken on films. Perhaps this is no recommendation, for it is frequently stated that only indifferent work gets approval from judges.

Then as to plates. This depends on the work to be done. We should naturally not use a rapid plate for copying a map or a process plate for taking a landscape. Outside of such limits I should say for all general photography, use the very fastest plate obtainable, providing the speed is not obtained at the expense of fog. Makers will often tell you to use slow plates, but this is only because they cannot so easily make good ultra-rapid ones. A rapid plate with a long scale of gradation is the best for portraits, architecture, and landscapes. As to whether the plate should be orthochromatic, this is a matter for individual opinion, but I must confess that I am heterodox in this matter. For those who like the results obtained with orthochromatic plates, then those are the plates they should use. My vote goes for the ordinary brands, excepting for certain special subjects.

Having each suited ourselves according to our various idiosyncrasies, with camera, lens shutter, and plate or film, we must consider the matter of exposure. Camera users may be divided roughly into three classes, — those who give too much and those who give too little exposure, and between these is a small and comparatively elect body who may be termed photographers. The man who over-exposes is gradually dying out. He was very prevalent some years ago, and said generally with pride that he was a worker in the old collodion days. He expatiated on his days with a perambulator and dark tent and his worries with the silver bath. Quite an honorable and pathetic figure, but he usually failed to recognize that the new era was speedier than the old and his work suffered greatly in consequence. The too little exposure class is the largest one to-day. It consists mainly of those who never will be photographers. They insist "they have a camera with an 'instantaneous lens,'" and therefore willy-nilly all their bad results are due to the ignorance or culpable carelessness of the man who develops their plates or films. Such people are very hopeless and won't learn. If they use kodaks they ignore their kodak manual; they won't take any hints from a dealer who supplies them, and I remember one of the genus lecturing me on the absurdity of my remarking that he had shaken his camera while making his exposures. Such a thing was absurd, for was not his camera fitted with what he termed an "instantaneous lens."

But the smallest class, who are recruited from such of the other two classes as have mental capacity for learning, know that "exposure" is the crux of the game. They do not ignore the time of day or month, light values, altitude, latitude, color, tone, and distance of object, but inform themselves of all these different influences which modify exposure, nor are they disposed to condemn such adjuncts as actinometers or exposure meters which are of the greatest value till experience is assured. And I would put in a word about exposure meters. With such instruments as those of Watkins or Wynne many workers find difficulty in trying to match the tints of the sensitive paper as it darkens with the fixed tints on the meter. This is obviated by not trying to match the color but only the depth of tint, and screwing up the eyes so that the color is not so distinctly seen is a great help in this direction. I should myself prefer approximately about one half of the exposure shown by the meter when using the makers' table of plate speeds, for as a rule the meters give the maximum exposures permissible for clean and brilliant negatives. Now that most of the best photographic work — as well as perhaps the worst — is done with hand cameras, it may be well to state the many causes of defective work. I should place them in the following order: —

1st. Not holding the camera steady during exposure.
2d. Using too fast a shutter.
3d. Misjudging the distance of the object.

I have often insisted that to hold the camera steady during exposure is "the golden rule in photography." Camera users fail to remember that the rate at which they press the shutter release does not in any way govern the speed of the shutter. More negatives are spoiled through not holding hand cameras steady than from any other cause.

Under-exposure is a prevalent complaint with hand-camera negatives. Photographers won't realize that for general work anything beyond a real $\frac{1}{32}$ is quite unnecessary and much work with figures can be done at $\frac{1}{8}$ and even $\frac{1}{4}$ of a second. In fact exposures of $\frac{1}{2}$ to $\frac{1}{32}$ are perhaps the most useful for general hand-camera work; consequently I prefer a diaphragm shutter to one of the focal-plane variety.

Regarding defective negatives obtained from misuse of the focusing scale, these might often be prevented if hand-camera makers would scale their cameras in yards instead of feet. Most hand cameras have distances such as, 8, 10, 15, 25, and 50 feet engraved on the scales. Apart from the 15 feet none of these are a definite number of yards. With such distances as 2, 3, 4, 6, 8, 12 and infinity on the scale, we may reckon the same number of paces and after a few trials these distances can be very correctly estimated. My own method is as follows. Supposing I want to

JOYOUS CHILDREN OTTILIE BERNFELD, VIENNA
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take some figures coming down a street, I decide perhaps a spot in the road or pavement which I intend they shall reach before the camera comes into action. I focus my camera to the estimated distance on the scale — and if there is any doubt as to the distance it is easy to pace from it to the position selected with sufficient accuracy for good work, and continue holding the camera at my side or behind my back till the group get fairly near. Then rapidly bringing the camera to level, I sight my object in an accurate view finder, and if the composition is correct release the shutter. It is all done so rapidly that the unconscious victims don't realize that a photograph has been taken. When they have passed by I change the plate. You will notice that I don't change the plate till my subjects have passed on their way. It is advisable in the interests of photographers who may come afterwards, that we don't dance in triumph on having bagged our prey. People are inquisitive enough as it is without having their imaginations excited by the thought that they may appear on post-cards in the local stationer's window, and I consider it an essential that my subjects may be quite unconscious of their doom. I have frequently photographed people at one yard distance quite unbeknown to them. Much may be done when lighting a pipe and appearing abstracted by the beauty of the scene. In such matters the male sex have great advantages, and consequently the very fine work being done by many ladies with the hand camera is worthy of the higher praise.

One other cause for defective negatives at this stage may be noted. Captain Owen Wheeler in particular has pointed out the importance of a lens hood in telephoto work in order to cut off extraneous light reflected from the bellows inside the camera, and also inside the lens tube which greatly impairs the brilliancy of the image. Professional photographers in the studio have never been unmindful of lens shades as aids to technical quality. Such an addition is of the greatest value to the out-door photographer, more especially when he wishes to get *contre jour* effects, in which the sun may shine directly on the lens and cause flare, apart from other troubles. Collapsible lens hoods are now things of everyday commerce, and failing them, many fogged negatives may be prevented by wearing broad-brimmed hats, and bending the head so low that the sun is just prevented from striking the lens.

An old adage says, "First catch your hare and then cook him," and, so far, we have dealt with the "catching of the hare," the really essential thing on which all else depends. For the rest, the development of our plate will be according to individual requirements; and if we have given the correct exposure and eliminated such causes of failure as I have mentioned, we shall certainly get a negative which will give a good print in one process or another.

I have developed many thousands of photographic plates, and yet never look on a dry plate without thinking what a wonderful thing it is. To all appearance it has not changed by exposure in the camera. What exactly happens when light for a fractional part of a second reaches it, is, I believe, a matter of controversy. We do know, however, that where light has reached the plate, the silver and bromide, being joined in their gelatine home, have had such a shock that they only hold together unwillingly. When bromide finds her affinity in certain other substances, she leaves silver, who is utterly cast down by this desertion, and probably wears black for the remainder of his days.

Such is the action of development, and all developers are agents which reduce the silver in the film to a metallic state.

In development, however, it is clearly necessary to keep the printing process in mind. For bromide enlargements we want clean negatives of delicate gradation, while for platinotypes or carbon, a much stronger result is imperative if we wish to take full advantage of the range, from black to white, possible in prints by these processes. Should we be copying line subjects on process plates, then naturally our negative must be as strong in contrast as possible quite irrespective of the printing method. Personally, for my own style of work, I prefer pyrogallol; and with a ten per cent solution of pyro and twenty per cent solution of carbonate of soda we have a developer which will fill the requirements of the average man, — at least, so far as his negative making is concerned. Whatever developer is used, the importance of temperature on chemical action must be borne in mind; and a temperature of 65° to 70° is desirable; in fact some developers won't work at less than 60° F.

The question of dish or tank development naturally arises, and so far as roll films are concerned I should strongly advise the tank working at a given temperature for a given time. A better average of results is obtained in this fashion. Films are not given to run to density, and for miscellaneous exposures a standard time will be found more reliable than working on the factorial system of Watkins — admirable as it is when the correct exposures have been given. It is in cases of over-exposure that the Watkins factorial system fails, for then the image makes its appearance quickly, but it is necessary to continue development quite as long as we should for normal exposures if we wish to get a printable negative.

Working with plates, I prefer a dish because of the pleasure obtained from watching the process, although of course this is not possible with panchromatic plates. It will be found that some plates tend naturally to great contrast. For those we use a developer weak in the reducing agent; and indeed for such plates a developer like metol, which gives detail first and density last, may be desirable providing the operator can use it without injurious physical effects. I am myself so sensitive to this chemical that almost to look at a bottle will bring out an eruption.

Other plates have a long scale of gradation and want a developer strong in the reducing agent to give great density.

Always use backed plates if you want the best results even for lantern-slide making, and disregard the makers' instructions to remove the backing before development. It certainly comes off in the developer, at least some of it does, and the remainder gets into such a condition that it is readily removed by a stiff brush at such a time as we wish to examine the plates. Most plates require to be developed till the image begins to show through the back of the plate. Should the dark-room light be a safe one and any appreciable amount of fog begin to form on the rebate of the plate

A SHEEP PASTURE ON THE MAIN KARL SUCHY, VIENNA

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before development is complete, then a developer should be used containing a small amount of bromide, say half a grain to each ounce, but it is better not to use bromide unless absolutely necessary. For small plates a clip of some sort or another will be found a great convenience, and save the fingers from coming into contact with the liquid.

The plate being developed, give it a slight rinse and then transfer to an acid fixing bath for preference. If this acid bath is made with metabisulphite of potash or soda — say, 1 ounce to each 20 ounces of hypo solution, — there will be no danger of sulphur being deposited on the film, and such a bath at once stops development and clears and hardens the film. If a plain hypo bath is used, the negative should be more thoroughly washed before insertion in the solution or the hypo may tend to oxidize the reducing agent and thus discolor the film. Moreover, greater care must be exercised with this plain bath before admitting any white light till fixing is complete, particularly if the developer has not been properly eliminated from the film, for development may continue and cause uneven results. Fix thoroughly to dissolve certain invisible silver salts as well as the visible ones, and after washing sponge the surface of the plate with cotton wool to remove any deposit from the water.

So much for direct negatives, and perhaps a word on enlarged ones may not be out of place. For this purpose I prefer to make a carbon transparency, because by means of this process every gradation in the original negative can be absolutely rendered. Of course, in the case of very thin negatives it might be desirable to make a transparency on a plate which would alter the scale of gradation, but, generally speaking, if we get the transparency of the same gradation as the original negative we may modify the scale of the enlarged negative by choosing the grade of plate, or exposure, or developer. From the transparency the enlarged negative may be made by artificial light or daylight. One word of guidance is desirable here, and I would particularly mention it because of a statement I read a short time since in an excellent and usually most well-informed photographic journal. The writer was discussing the subject of enlarging, and stated that certain dealers in photographic supplies, for reasons which he could not fathom, had been insisting upon the advisability of ground glass between light and condenser in enlarging lanterns, and gave it in his opinion that such a reduction in the value of the illuminant was quite unnecessary. I was at the time too lazy or too busy, I forget which, to dispute the writer's contention, but it was evident that he had never tried to make an enlarged negative from a carbon transparency in an enlarging lantern. The ground glass is essential in order that a diffused light may pass through the condenser and transparency, for if the light comes from one point, curious defects due to refraction from the varying thickness of gelatine which go to form the image make themselves very strongly marked on the enlarged negative. Moreover, every scratch, pinhole, or minor defect in the transparency is greatly accentuated if the naked light is used.

Such are the elements of negative making from the point of view of the practitioner. The science and mathematics of the processes involved may quite well be raised on these foundations by those who follow after.

BROMOIL PRINTS

W. L. F. WASTELL, F. R. P. S.

THE oil pigment printing process and its offspring, bromoil, have now been employed for a sufficiently long time to enable us to judge of their value. There was a tendency at first to overstate the advantages of both processes. It was almost claimed that all other printing methods would soon become obsolete. This was clearly absurd; and now that oil printing has settled down to its place amongst other processes, and that many examples by different workers have been shown, we may more accurately estimate its merits and its faults.

At first it appeared as though the bromoil process would become widely popular even amongst the rank and file of amateurs. The fact that large prints could be obtained without the necessity for making large negatives, as in the oil process, was a strong recommendation. But this anticipation of popularity has not been fulfilled. Many amateurs have taken up the process only to abandon it almost immediately. On the other hand, those who have persevered have become quite enthusiastic over the beauties and advantages of the process. No one will dispute that a successful bromoil print has a very distinctive character of its own, and it will be found that once the technique of the process is mastered, there is no other printing process so wonderfully plastic and fascinating. Moreover, there is no reason why anybody who takes up bromoil work in the proper way and devotes to it a reasonable amount of care and practice should not succeed from the very beginning. The general cause of disappointment and failure has been the adoption of imperfect methods or unsuitable materials.

The object of these notes is twofold: First, to indicate the materials that are likely to prove the most suitable; secondly, to describe a routine that is least likely to lead to difficulties. At the beginning the instructions given should be adhered to in every particular; afterwards, when the working of this method has become familiar, it will be quite safe to pass on to various modifications both in material and procedure. This is the reason why special makes of paper, pigment, etc., are named. Experience has shown that these are the safest for the beginner. When the beginner

LARGO **PAUL PICHIER, VIENNA**

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has developed into the expert he will naturally feel his way towards the procedure that best accords with his own tastes.

The first step towards success is the production of suitable bromide prints. These should be made on a special "bromoil" paper, made by Messrs. Griffins, Ltd., of Kingsway, London, who have agents in America. The paper is the same price as ordinary bromide paper, and is used in the same way. The prints may be made by contact or by enlargement. The most suitable developer is prepared by dissolving 1 ounce sodium sulphite in 20 ounces water and then adding 50 grains dry amidol. A pint of this developer may safely be used for a dozen 12 x 10 prints.

The exposure should be so regulated that the prints may be developed "right out"; that is to say, they are not withdrawn from the developer before the action is completely at an end. The prints should then be clear and strong — a good deal stronger than an ordinary bromide print. A flat, foggy print is quite useless for pigmenting purposes. The prints are fixed in a plain hypo bath, 4 ounces to the pint, thoroughly washed and dried.

Next comes the bleaching process. The following solution should be prepared and used, if possible, the same day as made. Its preparation is facilitated by using hot water and crushing the crystals of the different salts before adding them. Of course the solution is not used till it is cold. Citric acid, 2 drams; potassium bromide, 2 drams; potassium ferricyanide, 2 drams; potassium bichromate, 4 drams; alum, 8 drams; water to 20 ounces. This is enough for about half a dozen 12 x 10 prints.

The prints are placed in water, taken singly, and placed in the bleaching solution until all trace of black in the image has entirely disappeared, allowing a little extra time to ensure the action being complete. When all the prints are thus bleached they should be pretty well washed in several changes of water till the bichromide stain has disappeared from the paper. They then go for five or six minutes into a bath made by adding 1 ounce pure sulphuric acid to 20 ounces water. The acid should be poured slowly into the water, and as a good deal of heat is generated the bath must be made up some time before it is required.

Again the prints are rinsed in two or three changes of water and then fixed in 20 ounces of water in which 2 ounces hypo and ½ ounce sodium sulphite have been dissolved. Five minutes in this, followed by another short wash, and this stage of the proceedings is complete.

It is possible to proceed at once to the pigmenting of the prints, but it is safer to hang them up to dry once more. They are then prepared for pigmenting at any time by soaking them for an hour in water. If the water is above 65° F. a shorter time will suffice; if below it is well to finish up with five minutes' soaking in water at about 70° F. It is important that the gelatine should be sufficiently swelled.

So far the prints have received nothing but the ordinary mechanical treatment of photography. The final and essential stage — the actual building up of the image by means of brush and pigment — depends for its success on the skill and taste of the operator. For a long time nothing should be attempted beyond the production of a rich, well-graded image; endeavors to produce special effects by modifying the values should come later.

The best pigments to obtain are those put up in collapsible tubes by Messrs. Griffins, as these are of the proper consistency for ordinary work. Suitable brushes are rather expensive, but it is economy to buy the best. They work better and last longer. The proper kind to get are made of pole-cat hair and have a domed skew surface. A size adapted for 12 x 10 work will cost about $1.50 to $2. Smaller sizes are much cheaper and are useful for working on small areas. At least one flat cut brush should be bought for use in brightening up the print by "hopping."

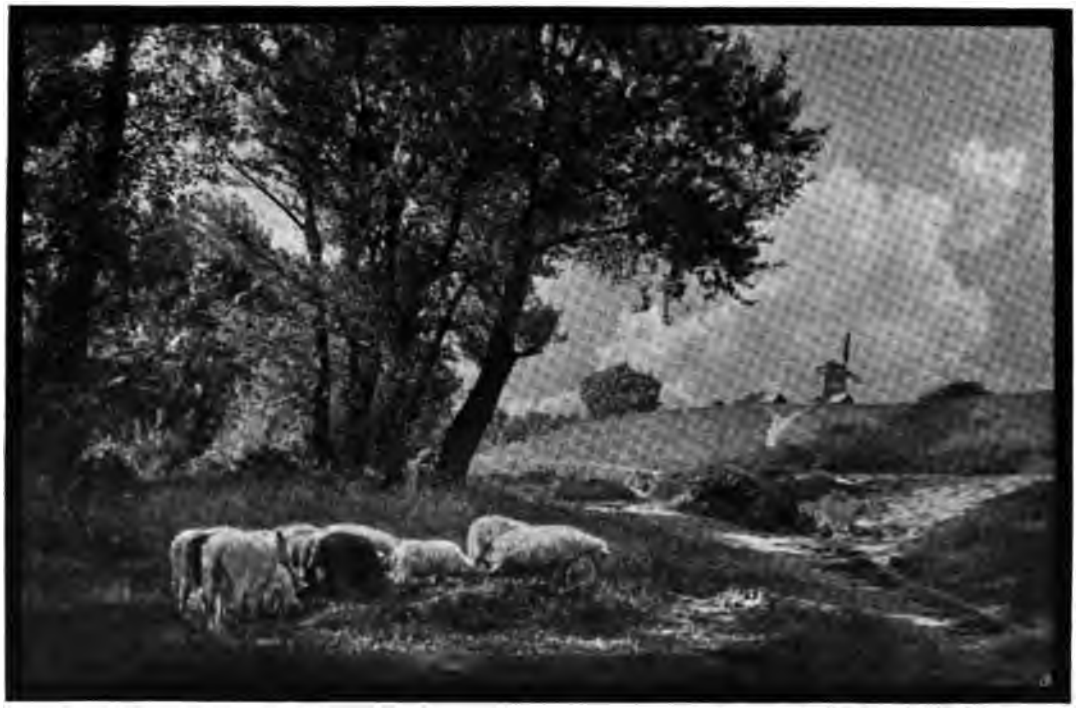
As to the color of pigment selected, it is as well to start with black. If, in addition, a tube of Venetian red is obtained, it is possible to obtain a long range of colors — black, warm black, cool brown, warm brown, red — by mixing the two pigments.

Actual pigmenting is proceeded with in the following manner: On a pulp slab, or a sheet of glass or zinc, are laid half a dozen sheets of stout blotting paper, soaked in water, and on top of these is placed a piece of thin muslin. This last is to protect the wet blotting paper so that it does not rub up under the sleeve or hand and pieces of it find their way on to the print.

A print, straight from its hour's soaking, is laid on the muslin, and the surface water thoroughly removed by gently rubbing in all directions with a clean white cloth that has been wrung out in water. The least drop of water left on the surface will cause trouble. A very little pigment — say, the size of a pea — is squeezed out of the tube on to a piece of glass and well rubbed out into a thin film with a palette knife. The brush is then dabbed gently on to this film of pigment and again dabbed several times on a clean part of the glass. The idea is that the extreme tip of each hair in the brush should bear a mere trace of pigment.

If now the brush is dabbed with light rapid strokes on the surface of the print it will be found that the color gradually takes in parts, and the image begins slowly to appear. This image should be faint at first and should build up gradually. At first the brush will want frequently recharging with pigment, but only minute quantities should be taken up at a time. No attempt should be made to hasten matters by applying large quantities of color. A little at a time patiently and evenly distributed all over the print will secure the best result. With a little practice, a 12 x 10 print may be finished well inside the hour, by which time the surface will probably be getting too dry to continue. It may be necessary to float the print on water for a few minutes without wetting the front of it. It is also possible to dry a print, resoak it, dab the surface moisture off gently, and continue pigmenting. But as a rule it is best to complete a print right away.

In order to brighten up high lights it is only necessary to take one of the flat surfaced brushes,



LANDSCAPE WITH SHEEP KARL PROKOP, VIENNA

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without any pigment, and "hop" it on the surface. To do this the brush is held vertically just over the print, dropped smartly, and caught again as it rebounds. The brush is almost thrown on to the print. This sharper action of the brush has the effect of taking off pigment where it is least firmly held; that is, on the high lights. On the other hand, the gently dabbing of the softer, curved-surface brush causes pigment to adhere. This variation in treatment makes it possible to produce a soft, delicate print, or a bright, strong one.

Once the pigmenting is finished, the print is pinned up by two corners to dry. The pigment sets almost as soon as drying is complete, but the print should be handled carefully for a day or two until the pigment is quite hard. Soon after the print is dry it is easy to pick out little high lights by means of a pointed piece of rubber, and when some days have elapsed a rub with an old silk handkerchief will remove any pieces of hair, dust, or fluff that may have adhered to the surface of the print.

The outstanding features of a successful bromoil print should be depth and richness in the shadows and delicate gradations of tone leading up to clear high lights. Any grittiness or mealiness in the image indicates that insufficient time has been given to distributing the pigment or that too much has been applied at a time.

When the beginner can turn out good prints with certainty he will be in a position to try his hand with other papers he may fancy, to experiment with other brands of pigment, and, above all, to attempt by manipulation to mold the character of his print somewhat nearer to "his heart's desire." It is then that he will require not only manipulative skill but a sound knowledge of art principles. He will probably discover that no other process he has ever tried affords him a wider scope for his skill.

MORE ABOUT RETOUCHING

ARTHUR HAMMOND

THE modification of the picture by means of handwork on the negative can be effected in many ways. My previous articles on this subject dealt with elementary retouching with a pencil on the film, but a negative often requires more drastic treatment, and very often other effects are required than can be secured by such means. Pencil work on the negative puts on light or makes shadows less dark, but it may sometimes be necessary to take away light or make shadows darker, and the only way to do this — except by working on the print itself — is to remove some of the silver deposit from the negative so that the light can penetrate more easily.

If the entire negative is too dense and it requires uniform reduction all over, then chemical reduction with persulphate or Farmer's reducer will be best, but if only a small portion of the picture wants toning down, such as a piece of furniture that has caught the light too strongly or a button that glitters, some mechanical means of reduction must be employed.

There are many kinds of reducing pastes, negative scraping pencils, and other more or less successful inventions for this purpose, and some of these I will refer to later on; but for all-round practical work there is nothing to beat a sharp knife, used with care, to scrape off as much or as little of the film as may be necessary. Not only is the knife by far the quickest, but it is less messy and less trouble. Certainly it requires some practice before it can be used successfully, but after a few trials on a waste negative, any one ought soon to acquire the knack of using it.

In the first place, the knife must be absolutely sharp, literally, as sharp as a razor; in fact, a safety razor blade makes an excellent scraper. Then it must be held in the right way so that it will shave off the surface of the film without cutting through it, and the best way to hold the knife is between the first finger and the thumb, keeping the edge perpendicular to the surface of the negative. It should not slant at all, or it will be apt to cut too deeply.

Then, thirdly, it must be used very lightly and carefully, the scraping must be done gently and gradually, not trying to shave off the part you want to reduce too quickly, but just working gently over it till it is gradually brought down to the required density. The first few strokes of the knife should be barely perceptible, but a series of very light strokes will do the job very neatly and without damaging the negative.

Special etching knives can be obtained for such work — three blades in an interchangeable holder; they cost about $1 and are sold by nearly every dealer — but a very sharp pocket knife can be used, or, as I said before, a safety razor blade, and the necessary skill to use it can soon be acquired by practice.

Don't make the mistake of trying to use the knife in the same way as you would use a pencil. Hold it close down, near the point, — so close, in fact, that the tip of the first finger just touches the negative. This will be a help in guiding the knife and preventing it from cutting too deeply.

I dare say different people have different methods of working with the knife; but, personally, when I use one of those knives that come in a holder, like a retouching pencil, I always take it out of the holder and use the blade alone, without any holder. I find I can get at it better that way.

Except on very rare occasions, — such as, for instance, when you want to scrape a fine line, — don't use the point of the knife; that will be apt to make the work scratchy. Use the curved edge, and if you hold it right and work very gently and carefully, you ought, after a little practice, to be able to scrape down a dense patch on the negative so that it blends with the rest and does not show that it has been worked on.

Many amateurs, I know, are afraid to use a knife, and find it difficult to avoid cutting and spoiling the negative. I can only advise them to try it and practice on a waste plate. It is not

MIDNIGHT IN SPITZBERGEN AEMILIUS HACKER, VIENNA
Wiener Photo-Klub

really as difficult to use as it seems, but, if they still don't like it, there are other methods of local reduction that are available.

There are various reducing pastes, erasing pencils, and such things, that can be used instead of or in addition to the knife. For large areas which need rubbing down, a reducing paste applied with the tip of the finger is very effective. These pastes usually contain powdered pumice, which rubs down the too dense portions very smoothly and evenly without scratching.

A negative erasing pencil which I have used and found very effective and satisfactory is Bruce's "Negafake," made and patented by T. S. Bruce of Hampstead, London, England.

This takes the form of a pointed stick or pencil of some hard substance, which is furnished in a box containing two bottles of special erasing medium. The medium is applied to the negative, and the part to be reduced is rubbed down with the point of the pencil and can be thus scraped down to the required density quite smoothly and with no possibility of scratching the film. This Negafake has been imported by and can be obtained from Messrs. Ralph Harris & Co. of 26 Bromfield Street, Boston, Mass., who will, no doubt, be glad to give further information regarding it, if required.

In outdoor portraiture, where there are trees or bushes in the background, it often happens that the light comes through the leaves and makes ugly white patches that give the picture a spotty and irritating appearance. In such a case, a little scraping often does a lot of good.

An expert professional retoucher, when he starts work, usually picks up the negative in one hand and an etching knife in the other, and does all the necessary etching first of all; and the moral

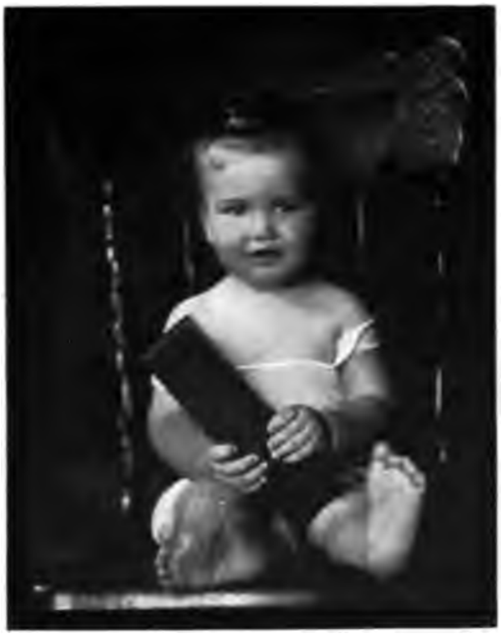


FIG. 1

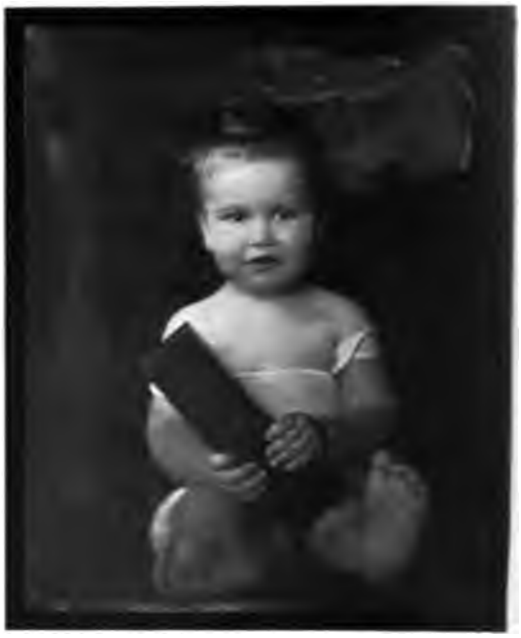


FIG. 2

of that is, firstly, that nearly all negatives need a little etching, and, secondly, that it is better to do any such work before the negative is doped. The film must be quite dry and hard or the knife will be very apt to injure it, and though it is quite possible to etch after the retouching dope has been applied, it is better to do all the knife work first and then dope the whole negative.

If the etching is not quite smooth and even, it can be patched up with the pencil.

All kinds of "stunts" are done in professional establishments by means of the knife, — stout ladies are made to look slim, crooked eyes are made straight, broken noses are made more or less classical, and so on; but such things are best left alone till considerable experience has been gained, and knife work, to begin with, should be limited to the background and to such defects as are well within the power of the beginner. When the worker has become an expert etcher and has complete control over his tools, he can go on to more ambitious schemes of modification.

Besides working directly on the film of the negative, a great deal can be done by working with crayon, pencil, or paint on the glass side.

In order to be able to do this, the glass side of the negative should be varnished with "ground glass substitute," a quick drying matt varnish which leaves a surface very much like ground glass on which crayon, lead pencil, or paint can be easily applied.

This is not difficult to do, though varnishing negatives is well known to be rather a ticklish operation. There is a popular fallacy that the novice usually gets most of the varnish up his sleeves, but this was never the case with me, even in very early days. My chief trouble, when applying ground-glass substitutes, was to avoid getting it on to the film side of the plate. The whole operation, however, is not very difficult, and a little practice will render it quite easy.

The way to do it is to hold the negative in the left hand, with the thumb at one edge, near the left-hand corner, and the finger supporting it underneath.

Hold it level, and pour a pretty large pool of varnish into the middle of the negative — more than enough to cover it. Then gently tilt the negative, till the varnish runs down into the upper right-hand corner. Just before it reaches the corner, tilt the negative again so that the varnish

HAY HARVEST IN THE ISLE OF MARKEN ALFRED LÖWY, VIENNA
Wiener Photo-Klub

will run along the upper edge into the left-hand corner; then, just before it runs over, guide it gently down towards the left-hand thumb, and finally into the right-hand bottom corner. Then tip the negative, to allow the surplus varnish to drain off into the bottle.

This all sounds rather complicated. It is easier to do than to explain. Of course, the glass must be quite clean before the varnish is applied, and the job should be done without much delay, or the varnish will begin to set and get hard before the whole negative is covered.

If any of the varnish does get over on to the film side of the plate, it can generally be removed quite readily with a pad of cotton wool, moistened with wood alcohol, and if the work is unsatisfactory or for any reason it is required to remove the varnish from the glass side, it can all be cleaned off with alcohol. The varnish will be quite dry and hard in a few minutes, and the surface will then be ready to be worked upon.

Some people prefer to stretch tracing paper or "papier mineral" over the negative, and work on that; but, in my opinion, the ground-glass substitute is more satisfactory, though, as it costs 50 cents per bottle, it is a good deal more expensive.

If the tracing paper method is preferred, it should be applied as follows: —

Cut a piece of the tracing paper the same size — or a little larger than the negative — and lay it in water, to get thoroughly wet and limp. Then apply a narrow strip of mucilage, about ⅛ inch wide, all around the edge of the negative, on the glass side; take the tracing paper, blot off the water, and lay it on the negative, pressing it down flat all around the edge. Get it as flat as possible, but any creases there may be will disappear when the paper dries. It will contract and will then become quite flat and taut, leaving a smooth surface that can be worked upon to almost any extent. The advantage of working on the glass side of the plate is that, in printing, the thickness of the glass between the hand work and the printing paper will tend to diffuse the work and will soften it down so that it will not be crude and hard. Now, suppose you have a negative in which there are parts that print too quickly and get very dark and parts that are rather dense and do not print out sufficiently before the rest is done. This state of affairs can

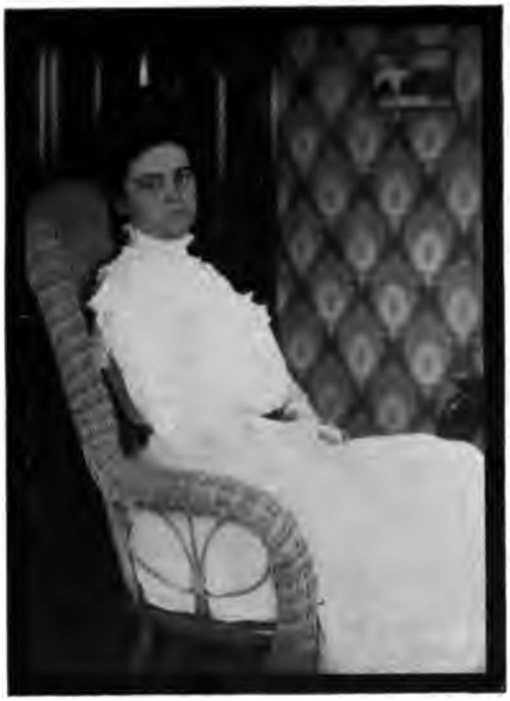


FIG. 3

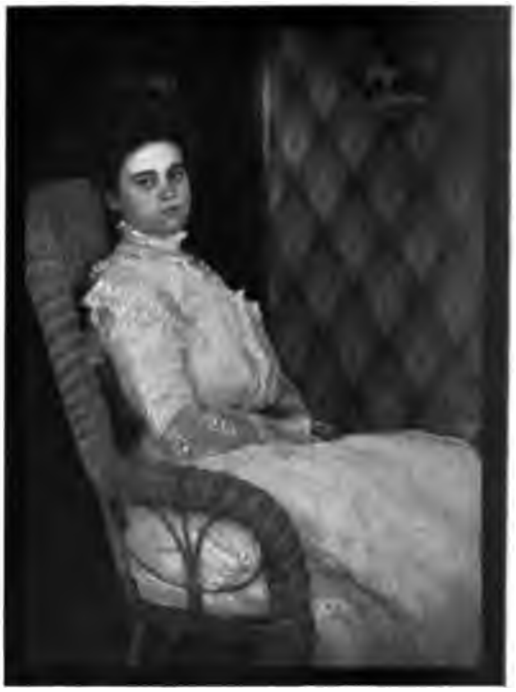


FIG. 4

be improved considerably. To keep back the thin parts a little, crayon sauce can be applied with a stump, keeping carefully within the outlines of the part, and getting the tint as even as possible. Only a very little crayon is required and any that gets over on to a part where it is not required can be easily removed with a soft rubber. A stump is better than a pencil; it is easier to get a thin, flat, even tint with a stump, whereas a pencil might show lines.

If you have used ground-glass varnish, and there are any parts that are too dense and do not print out quickly enough, they can be helped on by scraping off the varnish with a knife, leaving the glass bare. If tissue paper has been used, it can be cut away with a sharp pointed knife, but in this respect I think ground-glass varnish is better, as it is easier to scrape off the varnish than to cut away the paper, and the edges can be softened down more easily so that they blend into the rest of the picture, and there is far less danger of the hand work showing round the edges.

In this way great improvements can very easily be effected in negatives of nearly all subjects, — portraits, landscapes, and architecture, and if it is done with reasonable care, no trace of hand work will show in the picture.

There is, to my mind, no harm in hand work or faking of any kind, as long as it does not show as such in the finished picture. The picture is what you are aiming at, and I do not see that it matters much how you get your results as long as the results are right and do not show any obvious mixture of methods.

For this reason it is better always to do any necessary modifications as far as possible on the negative rather than on the print. Hand work on the print is always apt to show, but if you can arrange the negative so that it gives satisfactory results by straightforward printing, the picture will be more truly photographic. There are many, I know, who do not consider that any hand work is justified in a photograph. The ethics of such methods have always been the subject of much argument. The photographic purist believes that the camera cannot lie, and that, therefore, satisfactory results can be gotten by straightforward photography.

DAISIES H. A. SCHULZ, VIENNA

Wiener Photo-Klub

In many instances, it is true, an untouched negative will give a very satisfactory print, but photography has its limitations, and when there are errors in exposure or development of the negative, or when the range of tones in the subject is beyond the scope of the lens and dry plate, it seems to me it is quite right and proper to endeavor, as far as possible, to correct any such failings by means of "that clumsy instrument, the human hand," and very often just a very little modification by such means as I have described will greatly improve a picture without in any way destroying its photographic quality.

Now, with regard to the illustrations, it will be noticed in Fig. 1 that the lines and spots of light on the chair back attract an undue amount of attention, and make the background too "busy." They were easily removed with the knife.

In Fig. 3 there are two things that are not altogether satisfactory: First of all, the lines of light on the paneling of the door behind the young lady's head are unnecessarily prominent. These were scraped off with an etching knife, and I think the second picture shows some improvement in this respect. Then, secondly, the lady's dress is too white and hard in Fig. 3, and does not show any detail in the lace and trimmings. This naturally would not please the lady, and had to be remedied.

Now of course I know as well as you do that longer exposure in the first place and a softer working developer would have given a less contrasty negative, in which the dress would have printed out properly; but when taking portraits in other people's houses and with other people's cameras, as on this occasion, it is easy to misjudge the exposure, but such a negative is easy to improve by means of the ground-glass scheme, as above described.

In this instance, the whole negative was covered with the ground-glass substitute, which was then scraped off all over the dress portion; thus the whole of the rest of the picture was held back a little in printing, giving the dress a chance to catch up and print out to a more pleasing tone. The whole picture is rendered softer and less spotty, but there is no loss of photographic quality.

These two examples will, no doubt, give some idea of the necessity for occasional etching and other manipulation of some negatives. I do not say that every negative needs any such treatment, and I do not advise anything of the sort being done, unless there is a good reason; but when it is needed, a little hand work will be found to be a great improvement, and not nearly as difficult as is commonly supposed.

THE MOTION PICTURE

STANLEY CURTIS

IN this, the first of a series of articles, the writer will endeavor to give a brief sketch of the early history of moving pictures. A description of the apparatus used in taking the picture and in preparing it for exhibition on the screen, together with a few remarks regarding the modern projecting machine, will then be presented.

Succeeding chapters will be devoted to a full description of the use of electricity as applied to the motion-picture machine. Complete wiring diagrams, clearly showing every known form of connection for alternating and direct current circuits, as well as descriptive diagrams of alternating and direct current economizers, will be used throughout the series. The construction of a practical rheostat, for use on 550 volt circuits and the complete specifications for an approved machine booth, will be taken up in their turn.

In the text of the articles, many practical hints for the operator will be found.

For much of the exact data on the early history of the motion picture, the writer is indebted to Mr. Alfred H. Saunders, Editor of the *Moving Picture News*.

Chapter I — Early History and Subsequent Development

To relate, even in a general way, the complete history of the moving picture, from the date of its origin to the present day, would more than fill an entire number of this magazine, therefore, with the limited space at his command, the writer will confine his narrative to a brief outline of names, dates, and places.

In the first place, it might be well to state that the principle of operation in every form of moving picture is based upon the physiological phenomenon known as "persistence of vision." As an example to illustrate this phenomenon, let us take a small point of light and whirl it around rapidly in the form of a circle. The eye is unable clearly to follow its successive movements, but receives the impression that the light has assumed the form of a ring. For another example, a piece of stiff spring wire may be fastened at one end. If the free end is drawn down and then suddenly let go, causing it to vibrate, the wire appears to completely fill the space over which it moves. Thus we see that the retina of the eye has a tendency to retain, for the fraction of a second, the image impressed upon it. It is estimated that it retains each impression for a period of approximately one tenth of a second.

Now, let us picture in our minds a circular piece of cardboard, having around its edge a series of sketches, representing the successive positions assumed by a figure in motion. In a second disk of cardboard, of the same size as the first, we have a series of very narrow, upright slots, in number corresponding to the images on the first disk. If we mount these two disks on spindles, so that they may be revolved, — the disk with the slots having been placed directly in front of the one with the figures, — on applying our eye to the slots, while the disks are being revolved in opposite directions, a series of figures, each one in a slightly advanced position, is presented in rapid succession. So rapidly do they appear, in fact, that we cannot clearly follow their movements and our eye receives the impression of a single dancing figure.

During the early part of the nineteenth century the principles mentioned above were brought into play in an instrument called the "phenakistoscope." A few years later Desvignes introduced an instrument in which he employed a cylinder of cardboard, revolving on a vertical axis. Around the inside wall of this cylinder he placed a series of figures. Near the top of the wall he cut a series of small openings. When the cylinder was revolved and the eye placed at the openings, the illusion of the dancing figure was produced. Desvignes patented this machine in 1860 but did not name it. However, in 1867 a United States patent was issued to Mr. William E. Lincoln, of Providence, R. I., for a similar piece of apparatus under the name of "zoetrope."

THE CARD PLAYERS MAX SCHMIDT, VIENNA
Wiener Photo-Klub

In 1868 Linnett introduced and patented his "kineograph," a book of pictures of the successive positions of a dancing man. This appears to have been the embryo of the familiar penny-in-the-slot machine to be seen in any of our "arcades" of to-day.

The book idea was again patented in 1886, and in the year 1897 it enjoyed a great revival of popularity. At this time a similar device was patented under the name "pocket kinetoscope," in which half-tone photographs replaced the sketches.

In 1870 Marey, of France, commenced his research on the analysis of motion, and two years later Muybridge of California began working along similar lines. In 1877, Mr. Muybridge appears to have done the first practical work in motion photography, when he laid out his running path for the purpose of studying animals in motion.

On one side of his running path Mr. Muybridge placed a white background, which brought the animals out in bold relief. On the opposite side he arranged a battery of cameras, each having a shutter operated by an electro-magnet. Fine strings, placed across the path, were so arranged that when the animal stepped against each string, it would break and thereby release a switch, closing the circuit through the magnets and putting the shutter in operation. Thus he was able to secure a series of views of the successive movements of a horse or dog in the act of running.

Donisthorpe suggested his "kinesigraph" in 1876 or 1878. In this, he used a series of views in strip form. At about the same time Muybridge perfected his "zoopraxiscope," and exhibited the instrument at the Royal Institution in 1889. With the invention of celluloid in 1888 improvements in existing apparatus came thick and fast.

Messrs. Friese-Greene and Evans were the first to introduce a practical instrument for securing a record of any event suitable for later reproduction in the form of a moving picture. This machine was patented on June 21, 1889, and on February 25, 1890, the instrument was shown before the Bath Photographic Society. At this time it was in the makers' hands. It is stated on good authority that Mr. J. R. Bonheur, in 1886, evolved a plan for a very practical machine, while snowed under in the western part of the United States. This plan was later submitted to Mr. Thomas A. Edison. Mr. Edison appears to have been the first one to use the sprocket and a perforated film. His first patent specification was filed August 24, 1891, although a patent was not issued until six years later. Edison's first public exhibition was at the Brooklyn Institute on May 9, 1893. In 1894 extensive improvements were made on the Edison kinetoscope. Herrman Casler was granted patents on the "mutograph" (camera) and "biograph" (projecting machine) in 1897. This machine used a film 2¾ inches in width, and was operated by electric motor.

From the year 1898 to the present day almost marvelous improvements have been made, until the modern projecting machine appears to be nearly perfected. By improved methods the "flicker" has been reduced to a minimum; in fact it is practically a minus quantity in a well-equipped theater.

It is estimated that over one quarter of a million people attend the motion picture theaters in New York City in a single day. The reason for this immense popularity is readily seen. The motion picture affords the general public a means of good, low-priced, and educational entertainment that can hardly be obtained in any other way.

The growth of the modern "picture palace" out of the old "store-show" is interesting. In June, 1908, the People's Institute and the Women's Municipal League of New York City took steps for the betterment of conditions in the various places, with the result that many of the overcrowded and unsanitary fire-traps were closed. At the same time the better class of theaters began to make improvements, by installing adequate ventilating systems, larger aisles, and proper exits, etc., until to-day the modern motion picture theater is equal to most of the first-class houses in its equipment.

CHAPTER II — THE MOTION-PICTURE FILM AND THE CINEMATOGRAPHIC CAMERA

Before we come to the process of taking the picture, let us look at the film itself. A glance at Fig. 1 will give the reader a good idea of the appearance and size of a piece of standard film. Notice that the position of the figures in each one of the little photographs is slightly different. As these separate photographs are projected upon the screen at the rate of perhaps fourteen per second, the eye receives the impression of continuous motion.

Briefly described, a motion-picture film consists of a strip of transparent celluloid, 1⅜ inches in width, and perhaps several hundred feet in length. This film is coated on one side with a highly sensitive photographic emulsion. Along each side of the film is a series of elliptical perforations, which engage the teeth of the "sprockets" of the camera or projector.

Owing to the highly inflammable nature of celluloid, the use of the film in the projecting machine, where it is subjected to great heat, was attended with considerable danger, until the various fire-proofing attachments were added to the machine.

A little over a year ago, however, a new "non-inflammable" film was placed on the market and is now extensively used by many of the leading manufacturers. Needless to say, the introduction of this product has greatly lessened the fire hazard.

The modern cinematographic camera may be described as a light-proof box or case, containing an upper and a lower magazine or receptacle for holding the unexposed film; a very rapid objective lens in the front of the case; an automatic shutter immediately in back of the objective; a metal plate with an aperture in it, over which the film passes during process of exposure; and an ingenious mechanism by which the film is drawn from the upper magazine, held for the fraction of a second in front of the aperture for exposure, and then wound up on the lower spool. By means of a cam arrangement in the mechanism the film is drawn down just the width of one photograph after each

AN OLD BRIDGE ADOLF FRITZ, VIENNA

Wiener Photo-Klub

exposure has been made. The shutter cuts off the light from the objective lens while the film is being drawn down ready for the next exposure. The various parts of the mechanism are connected by gearing, and movement is given to the film by turning a crank on the outside of the case.

After the film has been exposed, it is taken from the camera in its light-proof magazine, and is wound over the slats of a large wooden cylinder called the "drum." This operation is, of course, performed in the dark room. The drum is then immersed in a tank containing the developing solution. After development is completed the film is rinsed in water and transferred to the fixing bath. From this it is taken to the washing tank and finally dried. Here we have the finished "negative."

After considerable retouching and perhaps removing defective places in the negative, we are ready to print the "positive" from it. The negative is placed in the printing machine with a supply of unexposed film. The blank film is run through the printer with its emulsion side face to face with that of the negative. The printer admits just enough light through the negative to make the necessary impression on the blank film. After running through the printer, the exposed film is put through the developing, fixing, and washing process and when dry, is ready for exhibition as a "positive" in the projecting machine.

It has often been stated that "a photograph cannot lie," but the motion picture of to-day seems to disprove that statement to a certain extent. A few examples of the tricks employed by cinematographers may be of interest. Doubtless many of you have seen a man swiftly climbing up the perpendicular side of a wall or building, holding on to apparently nothing,—perhaps followed by an angry mob holding on in the same manner. This remarkable feat is accomplished by laying the "side of the building" horizontally on the floor of the studio and placing the camera overhead so as to look down on the scene. It is then a simple matter for the "angry mob" to chase the fugitive up the side of the building on their hands and knees. The astonishing appearances and disappearances we see so often, as well as the substitution of one article for another in the

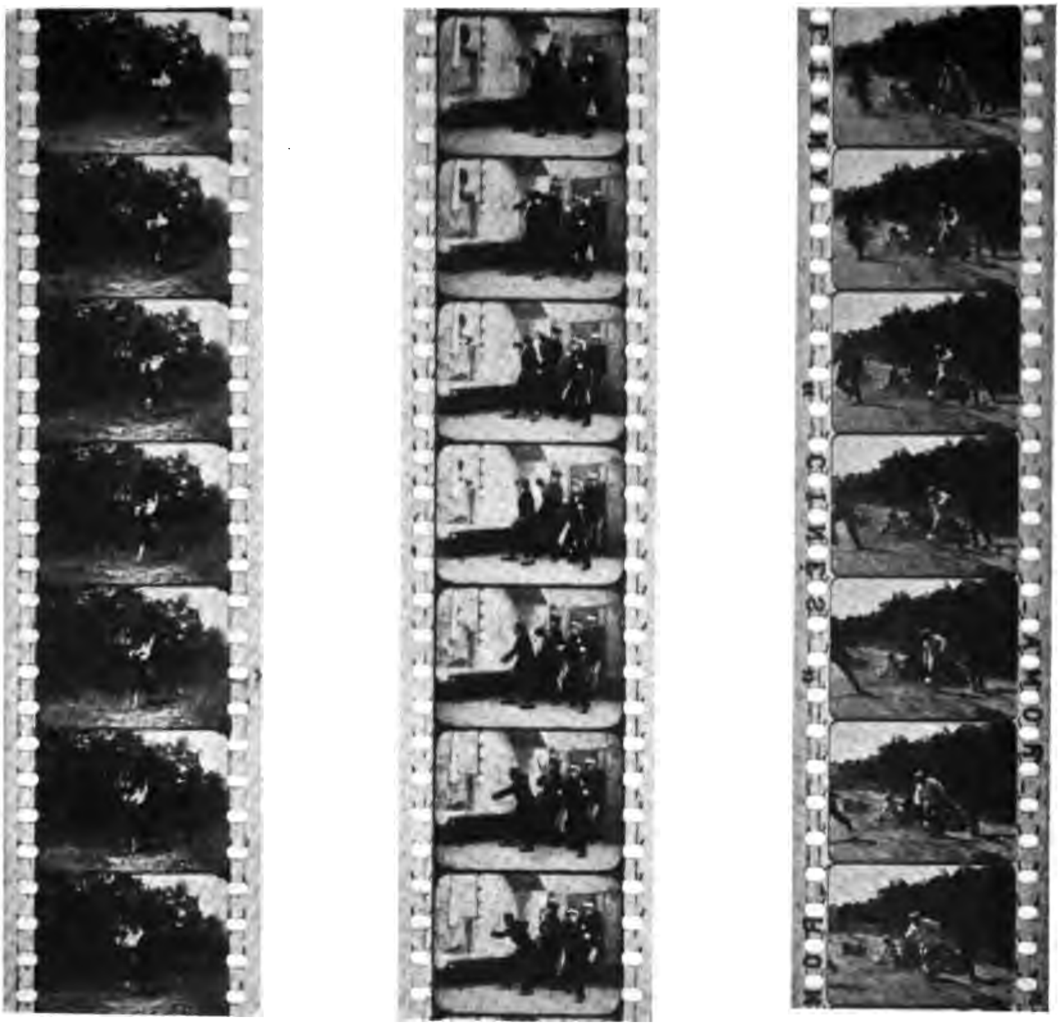


Fig. 1

most mysterious manner, are produced by merely stopping the camera for a few moments, making the desired change and then starting up again.

Many a time we have seen a horse galloping down the street and then suddenly starting to run backwards. Perhaps we have seen divers leaping out of the water, feet first, landing gracefully on the springboard, then running backwards at full speed. This startling effect is produced by reversing the film in printing.

Chapter III — The Projecting Machine

Let us refer to Fig. 2, which gives an excellent view of a modern "Powers" machine. The complete outfit consists of a hand-power mechanism, with automatic shutter and motion-picture objective lens; fireproof magazines; stereopticon lens; lamp-house with arc lamp; rheostat; slide carrier; condenser lens; double pole knife switch; asbestos covered wire and baseboard with telescopic legs. We will first consider the mechanism, a detailed view of which is given in Fig. 3.

THE DEPARTURE OF THE LOCOMOTIVE DR. THEODORE MAYER, VIENNA
Wiener Photo-Klub

The reel of film to be exhibited is placed in the upper magazine, with the end of the film put through the small slot in the bottom of magazine. After closing magazine door the film is drawn through the slot, carried over the upper sprocket and here formed into a loop. (See illustration.) It is then passed over the framing plate and from there to the intermittent sprocket. From this it is again looped before passing over the lower sprocket. After leaving the lower sprocket it passes through a slot in the top of the lower or "take-up" magazine. A reel in the lower magazine is connected by belting to a shaft of the mechanism. The action of this lower reel or "take-up," as the complete device is called, is automatic; and it winds up the film with just the right amount of tension, after it passes through the mechanism. Figure 4 clearly shows the take-up device and also the "shutter" directly in front of the objective lens. (See also Fig. 5 for view of shutter.)

The reader will observe that the projecting machine works on exactly the same principle as the camera, the shutter on the projector serving to hide the movement of the film as it is drawn down by the intermittent sprocket.

Notice that there are three blades in the shutter. Only one of these blades is actually used to obscure the movement of the film, the other two acting as a sort of light balance, which greatly diminishes the "flicket" of the projected picture.

Most modern machines have a groove or other guide on the shutter shaft, which considerably simplifies the operation of "setting the shutter," should it get out of alignment. The effect on the eyes is most unpleasant when the shutter is not set correctly. The defect shows up very plainly on the title of a picture or in any other place where black and white appear in contrast. The high lights appear to have a decided "haze" dancing up or down from them, depending on whether the shutter is set "high" or "low." (Also expressed "slow" and "fast.")

In setting a shutter, a piece of white paper or other light-reflecting substance should be placed in front of the objective lens. Placing himself so that he has an unobstructed view through the

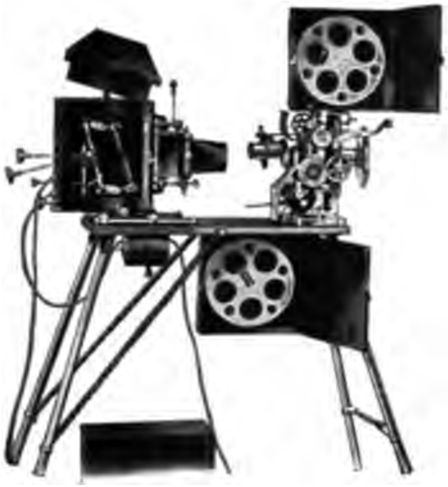


FIG. 2

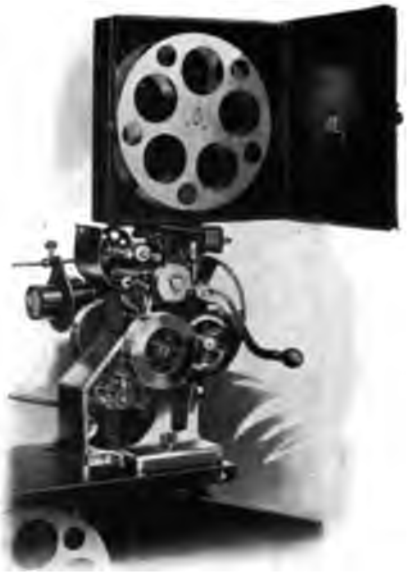


FIG. 3

aperture and objective lens, when the film gate is open, the operator carefully turns the balance wheel in the direction of rotation, until the intermittent sprocket starts to move. At this point, the fan-shaped blade of the shutter should have completely covered the objective lens. Continue turning the balance wheel until the sprocket has ceased to move. This is the place where the shutter blade should start to uncover the objective. It is comparatively easy to watch the combined movements of shutter and sprocket; and if they are not in harmony, the shutter may be placed in just the right position by first loosening the set screws.

In threading up a machine the film will often be "out of frame," — that is, the little photograph may not come in the exact center of the aperture. An attachment known as the "framing device" enables the operator to instantly shift his picture up or down, even while running, so that it appears neatly framed on the screen. This adjustment is effected by merely raising or lowering a small lever.

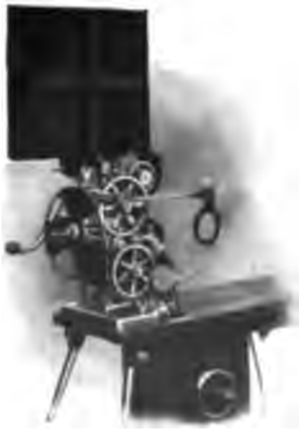


FIG. 4

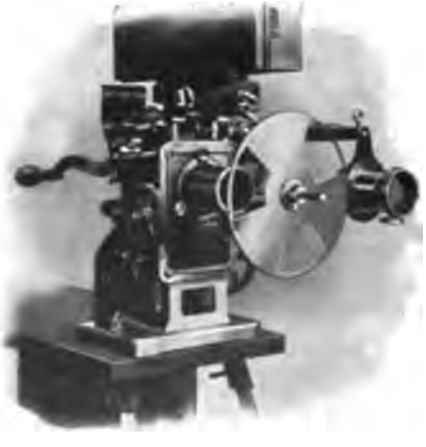
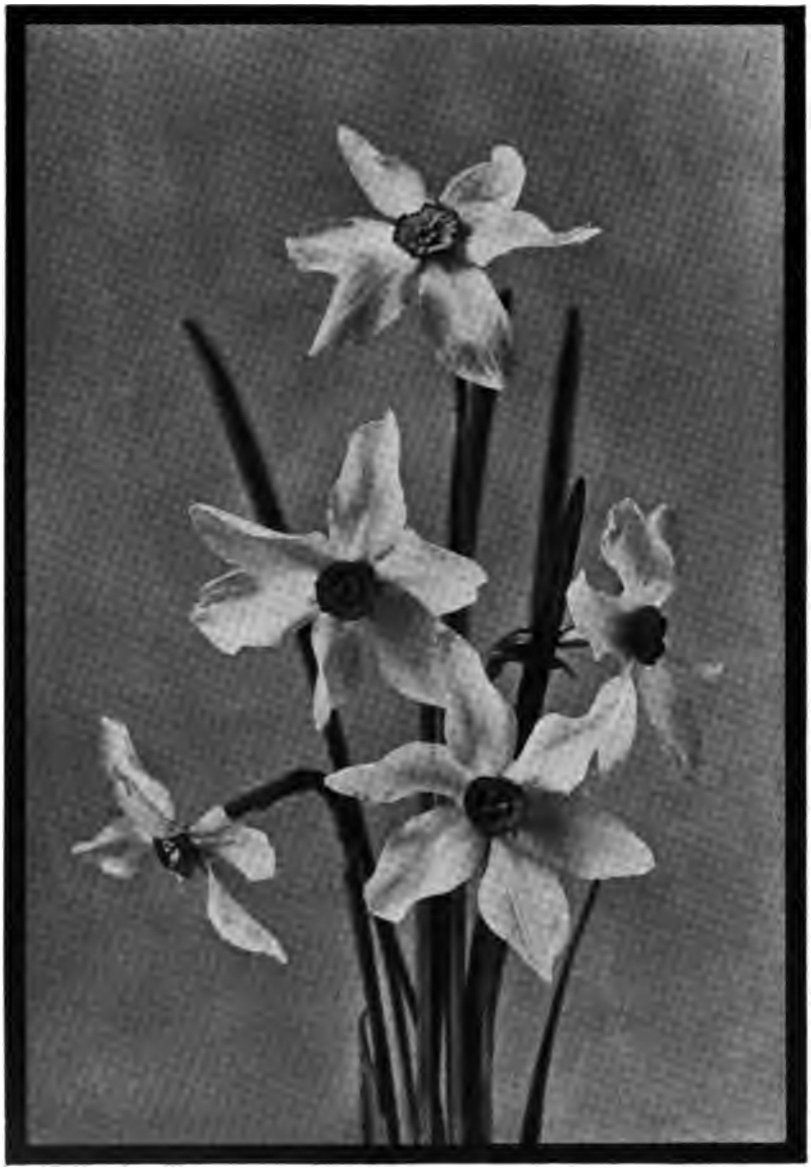


FIG. 5



NARCISSI
E. J. BROOKINS, WISBECH
First Prize, Monthly Competition

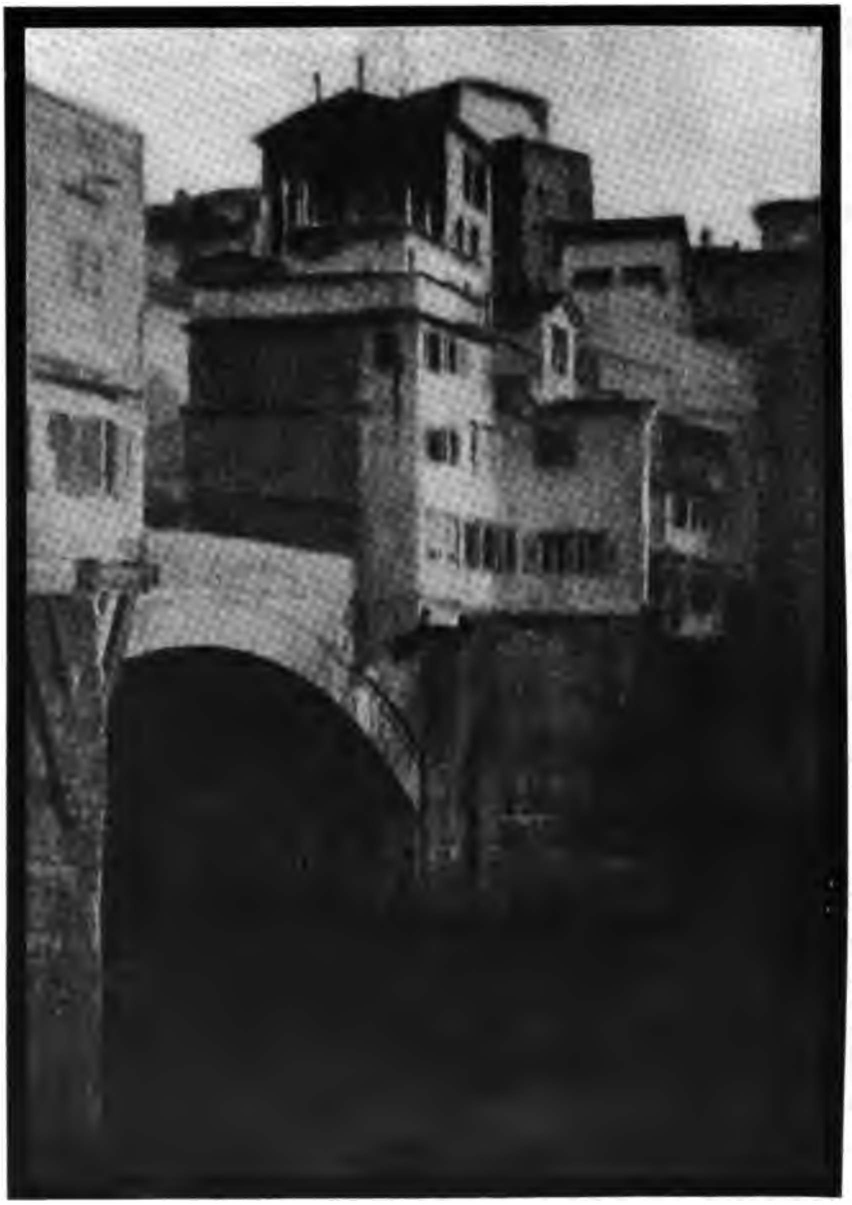
Now, on some of the older models of machines, this framing device plays havoc with the adjustment of the shutter, under certain conditions. For instance, if the shutter is set while the framing lever is all the way "up," it will be considerably out of adjustment if the lever is placed in the "down" position. The only suggestion which seems to fit this situation, is to set the shutter while the lever is in a "neutral" position, — midway between up and down. If this is done, the disarrangement will not be so pronounced; and if, when threading up, the operator will take the trouble to place his film on the sprocket, so that the lever may remain "neutral," his shutter will "pull" only when a jump in the film necessitates a decided movement of the framing lever. In most of the new models this defect has been eliminated.

Quite frequently, during the run of a new or "first run" film, minute particles of the emulsion will adhere to the tension springs. If this occurs at the opening of the reel, the emulsion may accumulate so rapidly as to seriously interfere with the passage of the film. Considerable noise attends this evil, and its harmful effects on the film may be seen in strained and broken sprocket holes. Rather than run the risk of completely ruining a steel film, it is advisable to stop the machine for a few moments, carefully scraping the emulsion from the springs and applying a small quantity of oil with the tip of the finger. If the precaution is taken to clean and oil the springs before running each reel, this trouble will seldom appear, although with some makes of film it will show itself in spite of all the operator can do. In regard to the instrument to be used in scraping the springs, some authorities advise the use of a sharp knife blade. The writer's experience has been that this invariably roughens the surface of the tension spring. The bone handle of a discarded tooth-brush may be filed up into the shape of a chisel at the end and will furnish a most efficient tool for this purpose. Care should be taken to wipe out the aperture in the framing plate before threading up, as a dirty, ragged edge surrounding the picture does not speak well for the operator.

A carelessly made patch will almost invariably jump off the lower sprocket. Carefully examine *every patch*, where time will permit, before running your show. Many a break-down will, in this way, be avoided. If the tension on the take-up is too tight, it will cause the film to leave the sprocket at almost every patch, — good or bad. The tension should be set so that the film is only moderately taut when nearing the end of the reel. The idler rollers, which hold the film against the sprocket, should not press on the sprocket, but should set almost 1-32 inch away from it.

See that the slots, through which the film passes, in both upper and lower magazines, are exactly in line with upper and lower sprockets. If trouble is experienced with the heads of screws in the reel catching under the spring in upper magazine, solder a washer securely to the face of the spring. The screws will be found to pass under this washer without catching.

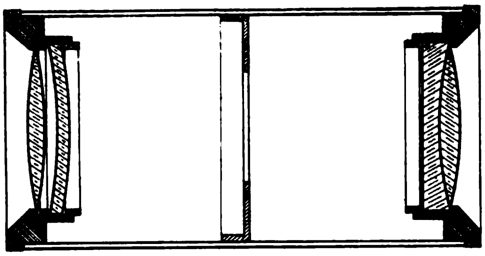
In case the projecting machine is not exactly on a line with the center of the screen, the projected rectangle of light will be larger on one side than the other. There are two ways of overcoming this. One, the most commonly used perhaps, is to tilt the screen so that its surface is at right angles to the line of projection. For various reasons this method may not be convenient in certain places; and in this case we may have recourse to the following method: Let us carefully examine the framing plate. We find that it is held in place by four small screws. Now, the operation we are about to perform is based on the same principle as the adjustable back of a camera, by means of which the photographer is able to take a perfectly rectilinear photograph of a high building, with his camera sitting on the ground. We know that the nearer our machine is set to the screen, the farther out of its jacket our lens must be, in order to secure a sharp focus. Let us assume that the screen is placed squarely across the end of the room or theater and our projecting machine is located perhaps 8 or 10 feet to the right of the center. The projected view will be smaller on the right-hand side of the screen than at the left. The angle of the machine to the screen brings the right-hand side of the screen closer than the left. Acting upon the above principles, if we loosen the screws in the framing plate and carefully "back it up" with thin strips of metal on the *right* side, we will bring



PONTE VECCHIO, FLORENCE
H. Y. SUMMONS, CAMBERLEY

the entire aperture into correct focus. A very small amount of packing is needed, as the adjustment of 1-64 to 1-16 of an inch will be found sufficient to fill most requirements. In fact the adjustment should not be carried more than 1-16 of an inch without making a corresponding change in the tension spring on that side.

It may be of interest to note that most standard makes of projecting machines pass just 12 inches of film to each complete revolution of the crank. This knowledge may come in useful in measuring a piece of film, and it will also give the operator an accurate method of determining how long a particular reel of film will run if he turns the crank at a given speed. The average rate of speed is sixty turns per minute, which tells us that 60 feet of film are being passed through the machine in one minute. We know, therefore, that the average reel of 1000 feet will run approximately seventeen minutes.



POSITION OF LENSES IN TUBE
STANLEY CURTIS '10

FIG. 6

The objective lenses furnished with most modern machines are mounted in tubes, which fit into a "universal jacket," containing the rack and pinion adjustment for focusing. This method permits a quick and easy change of one lens for another of a different focus.

The lenses should be carefully cleaned before each run and should be taken out of the tube occasionally for a thorough cleaning. Figure 6 shows the correct position of each lens in the tube. An easy rule by which the operator may remember the exact location of the lenses is this: "All convex surfaces (out curves) should face toward the screen." The front or "achromatic" combination consists of two lenses cemented together with a transparent cement. One of these lenses is composed of "crown" glass while the other is "Flint" glass. By this combination we are able to secure a projected light free from prismatic color. We can easily remember that the "cemented" lens goes in the front of the tube. Now, in replacing the back combination, we have only to remember that the convex side of one goes next to the concave side of the other. No danger of confusion for there is only one concave surface in the entire set. If the operator will memorize this little rule, it will save him many an hour of annoyance. It is hardly necessary to say that a single misplaced lens will throw the picture badly out of focus.

It may appear superfluous to say that a motion picture machine should be kept clean and well oiled. However, it is surprising to note, as one makes a round of the various operating booths in a city, how few machines are kept *clean*. They are, as a rule, well oiled, for if they were not it would take too much "elbow grease" to turn the crank, — in fact the majority of them are simply overflowing with oil. But with this abundant lubrication we find the choicest collection of dust and grit. It is only the work of a few minutes to wipe off the mechanism after finishing the day's run, and another wiping off in the morning before oiling up will keep a machine in first-class condition. It is well to give the gearing a thorough cleaning with a tooth-brush and oil frequently. If the machine is one of the older models, in which the star and cam wheel, which impart the intermittent motion to the sprocket, are exposed, these vital parts should be carefully cleaned several

PONTE VECCHIO, FLORENCE WILLIAM H. PHILLIPS, EAST LIVERPOOL

Sixth American Salon

times a day, as they are the very life of the machine and a very small quantity of dirt or grit between them will work untold injury. In the new machines this movement is enclosed in a dust-proof casing, which is kept full of oil. The oil used on the machine should be the very best procurable, the "non-gumming" quality being quite essential.

The condensing lenses are used to concentrate the rays of light from the arc lamp in the lamp-house on the film at the aperture. These lenses are subjected to a terrific heat, and frequently break, causing the operator great annoyance. In placing the condensers in their holder, make sure that they fit loosely, as otherwise they will have no room to expand when the heat strikes them, consequently breakage ensues. A sudden cold draught striking the hot lens will often cause it to crack. The following table may be of use. It gives the approximate size of pictures with varying distances between the lens and the screen, when a standard "Pathé" lens is used.

Distance Between the Lens and the Screen

No. of lens	15 feet	30 feet	45 feet	60 feet	75 feet	90 feet
20	9	18	27	36	45	54
25	8	16	24	32	40	48
35	6	12	18	24	30	36
45	5	10	15	20	25	30
55	4	8	12	16	20	24
65	3.8	7.4	11	14.8	18.4	22
75	3.4	6.8	10	13.4	16.8	20
85	3	6	9	12	15	18
95	2.7	5.2	7.9	10.4	13	17.6
105	2.3	4.6	6.9	9	11.3	15.6
125	2	4	6	8	10	12

PORTRAITS AT HOME

WILLIAM WATSON

IN writing this article I am prompted by a desire to give you, my brother amateurs, the benefit of my experience in making portraits at home, with the hope that you will meet with the success that I have met with.

Before going right into the subject at hand, it is my wish to give you a part of the history of my photographic career, because I feel that you have had the same experience and can lend a sympathetic ear to the unfolding of my troubles.

Several years ago I was an amateur photographer of the "rankest" kind, and my knowledge of the subject was not only limited, but was decidedly crude. My lack of knowledge, however, was to a great extent offset by my enthusiasm and my determination to learn all that I could and as soon as I could; as a result, my camera went with me everywhere, on my vacations, to the seashore, in the mountains, and out on the farm where I spent part of one vacation; we were inseparable companions. My first efforts, as were yours, perhaps, were confined to snap-shots of almost everything, and with the usual result, — failure. As time passed on, however, I learned more and more about the subject of exposure, development, and the various printing processes, as I did all of my own work in those lines. In my spare time I did a great deal of reading on the subject and very soon found that I was rapidly gaining knowledge. Let me say, though, that I discovered that reading would not do it all, and that I had to learn to put into practice that which I had read.

After I had passed through the snap-shot stage of photography and had learned by bitter experience that merely pressing the button would not produce a picture, I began to take a greater amount of interest in my work, and immediately laid down a rule that under no circumstances would I ever again just aim my camera, press the button, and trust to luck. As a result of this rule, my negatives improved wonderfully and my prints also showed a marked improvement; I was so greatly encouraged that my little snap-shot box was put aside forever, as I thought, and a bright, new 5 x 7 camera took its place. Let me say a word here in reference to the camera; it had all the adjustments that a good camera should have, rising front, swing back, and — best of all — a long bellows extension. I did not know much about such things at the time, but I discovered the

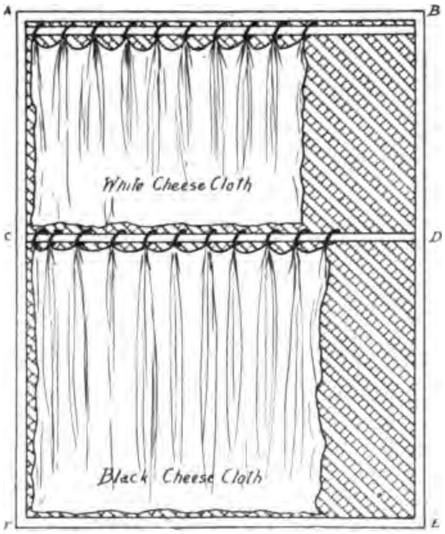


DIAGRAM OF LATTICE

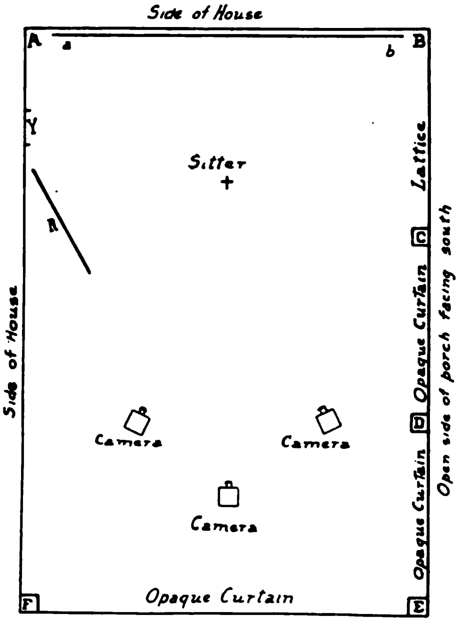


DIAGRAM OF PORCH

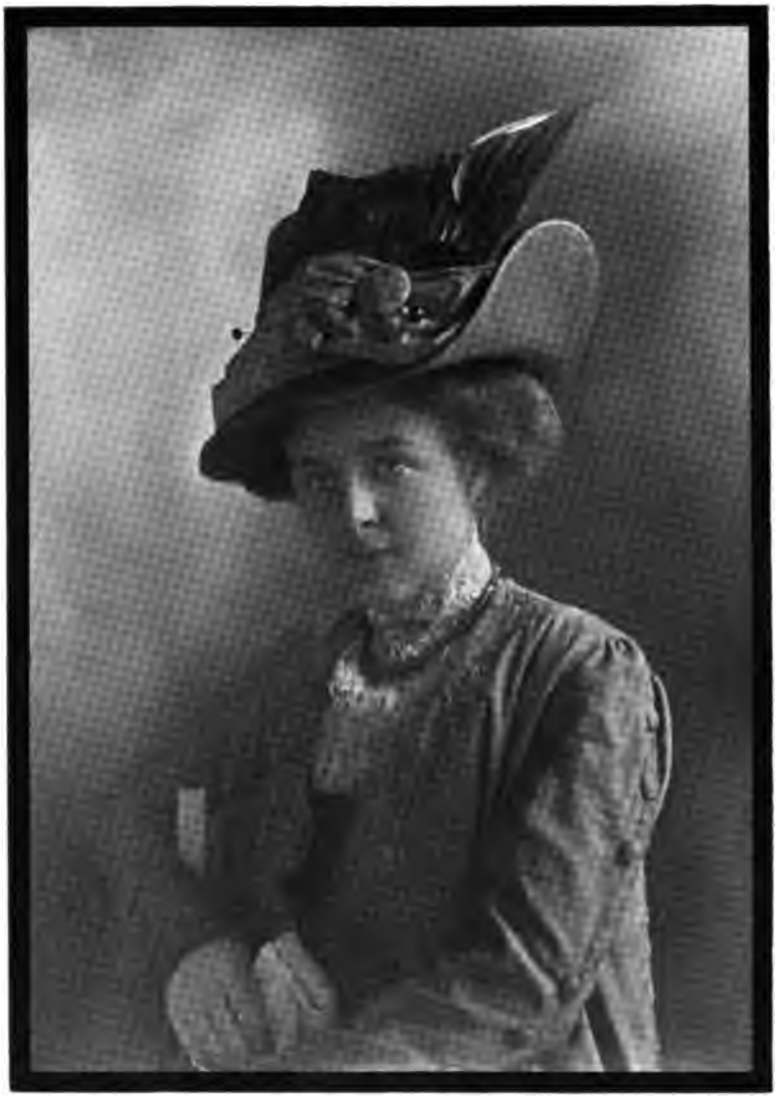


Fig. 4

value of them later on, and to this day I am grateful for the advice of the friend who advised me in the purchase of my instrument. When you are thinking of buying a new camera, see that it possesses all of these advantages; for even if you never need them, it is far better to have them and not need them, than to need them and not have them; you will find the long draw of great value when you undertake to make portraits.

After the new camera arrived and I had made myself familiar with it, with my hard-earned knowledge to spur me on, I turned with all confidence towards that most alluring of all branches of amateur photography, — portraits at home; but the call was but the call of the siren's voice, for the disappointments were bitter and the awakening cruel. Never will I forget my first attempts, how they were laughed at, and how small I was made to feel when I showed what I thought were portraits. I can realize now that they were caricatures, that they were crude, harsh, and of the soot and whitewash variety; I can see it all now, and I forgive those who laughed; but those prints!

they were beautiful! the whites were white all right and the blacks! Oh, yes, they were black. I spent time and money, more money and more time, and my entire stock of patience trying to solve the problem of proper lighting, but finally had to give up and confess that I was beaten. Despair had me in its grasp and I gave up trying for a while, put my bright, new camera on the shelf, thinking that I had reached the end of my photographic career; but my long-forgotten little snap-shot box came to my rescue and lifted me out of the depths

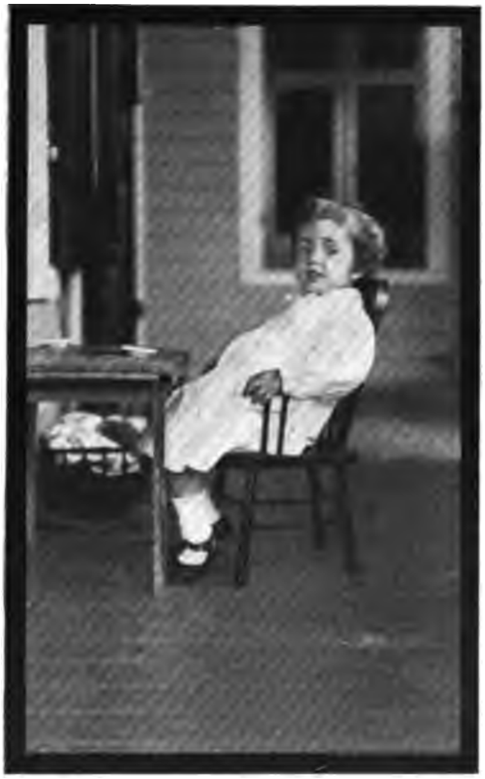


Fig. 1

of despair in this manner: one day my little girl was playing on the back porch upstairs when my wife called me and asked if I would make a picture of the child at play. I took down the little camera, went out on the porch in a rather half-hearted manner to try to gratify my wife's whim; there sat my little girl at her toy table, her dishes in front of her, busy playing tea-party. My interest revived at the sight of a subject so pleasing, so I procured a chair to use as a tripod, set my little camera on it and proceeded to expose

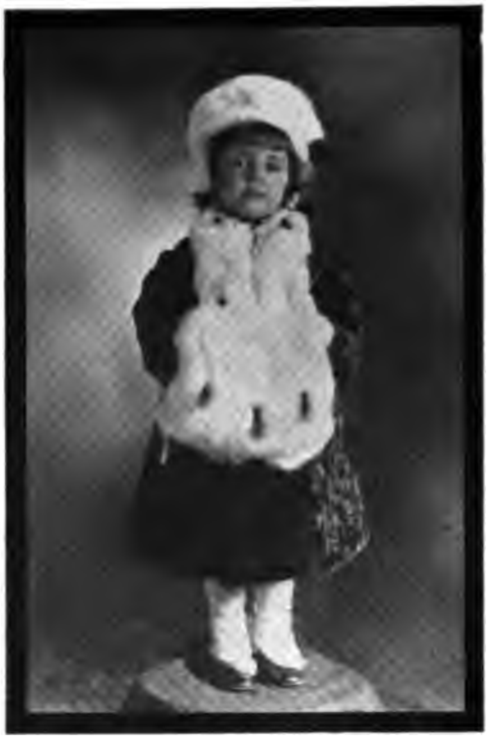


Fig. 2

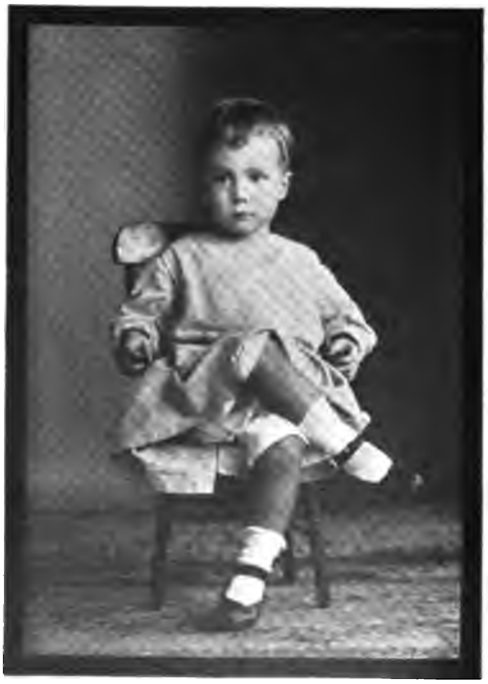


Fig. 3

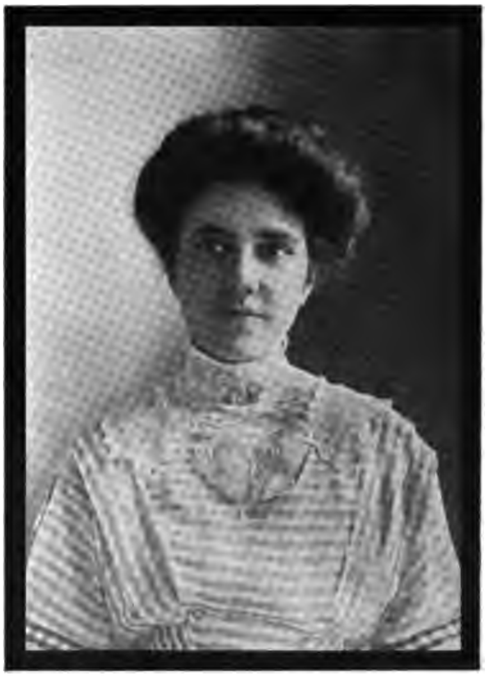


FIG. 5

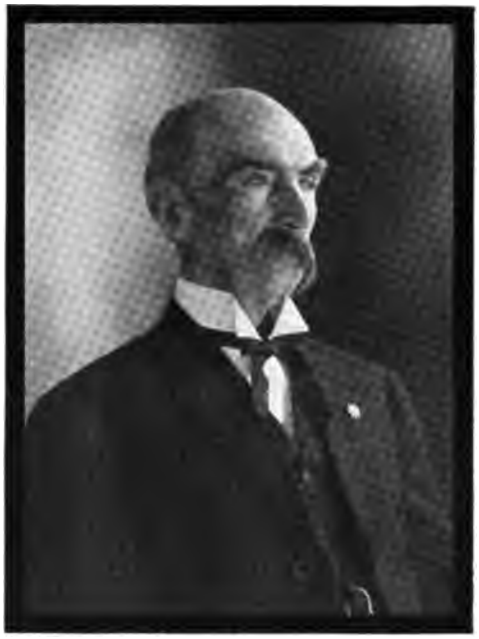


FIG 6.

a film. Just as I made the exposure the child turned her head toward the camera and spoiled the effect I was striving for, but it proved to be a matter of small importance to the discovery I made when the film was developed and the print made. You can imagine my feelings when I saw that I had chanced upon a ready-made studio, the porch; a studio in which the lighting was well-nigh perfect. I saw immediately that my porch could be made to answer the purpose of a studio to perfection with a few simple contrivances to soften and diffuse the light, which was too strong. With a small outlay for some ordinary cheese-cloth, both black and white, some artist's tracing linen, and one or two cheap backgrounds I proceeded with a light heart to construct my first studio. It has proved to be a great success, and the favorable comment on my pictures repays me for all the heartaches that I suffered in the past. After I had succeeded in turning out several very creditable photographs, my friends heard of my success and came flocking to have me make their portraits. Of course I was willing to make them and to give them away. I took them by the dozen and gave them away by the gross, it seems, until I began to find it a heavy drain on my pocketbook. I then determined that if my friends wanted to have me make their portraits that they must pay me for them, and they did, too. They sent their friends to see me, and in a very short time I had about all that I could do. You, too, my brother amateurs, have found that photography as a pastime proves to be expensive, and that it doesn't take long for the money to go; but I can point with pride to my back porch studio and say that it has placed a snug little sum at four per cent interest in the local savings bank for me. My pictures are not laughed at any more; on the contrary, they are sought for, and all my spare time is taken up with making portraits of the neighbors, their children, and their friends. I put a fair price on all of my work and make it a point to keep it up to fair standard of quality. If my negatives require retouching, I send them out to an expert retoucher, as that is a part of the work that I have no inclination for.

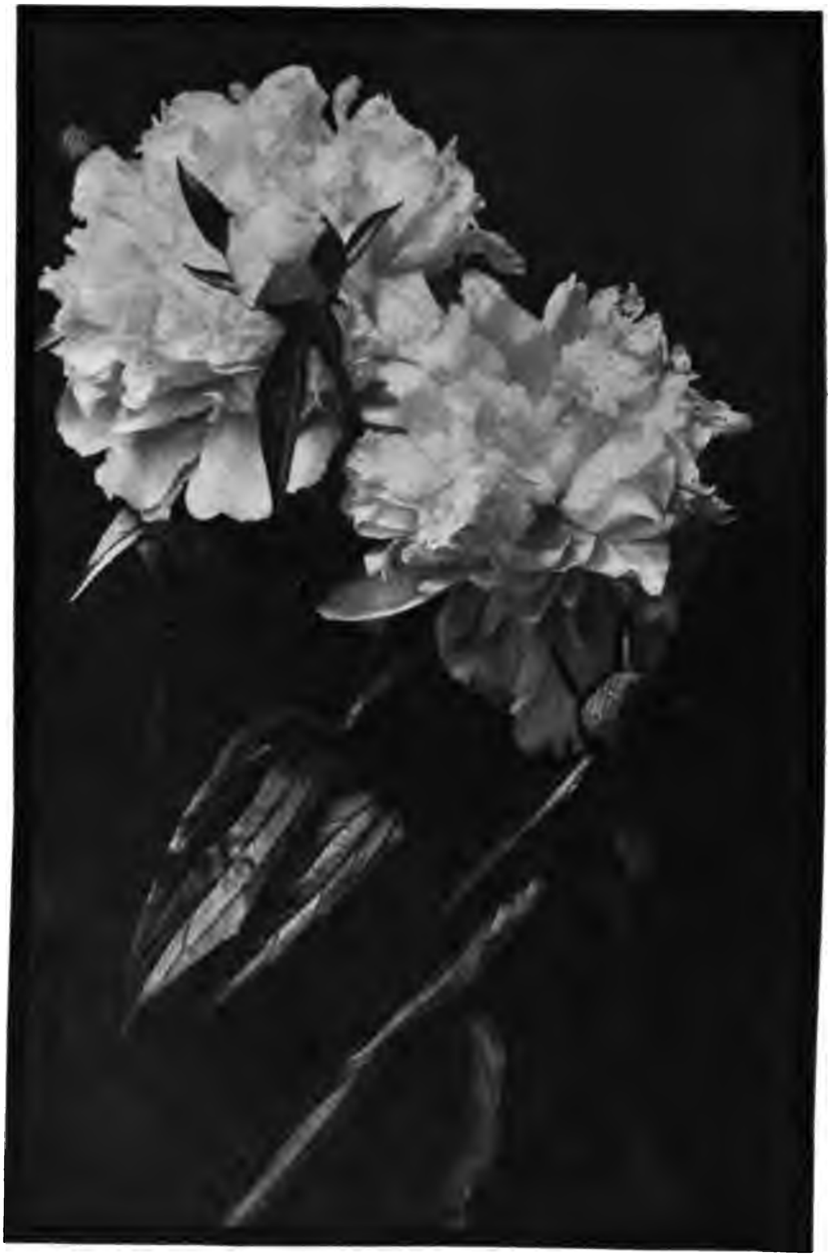
In order that you may be able to understand clearly just how I have arranged my studio, I will try to describe it in detail with the help of diagrams.

The porch is an ordinary upstairs back porch, open on two sides and roofed over; it is 21 feet long, 8 feet wide, and 10 feet from the floor to the ceiling; the side and one end of the house form an L so that all the light comes from the open side, which is toward the south. It was on account of this southern exposure that I had to devise some means for diffusing the light, as it was entirely too strong; this I accomplished by means of the cheese-cloth curtains, which I will describe later. But I still had too much light, and it came from too general a source, so the next step was to cut off some of this excess which made the lighting of my subjects too flat. You will understand how I did this if you will refer to the diagram. At points marked C, D, E, and F there are small uprights to support the roof of the porch, and between these four points I placed three opaque curtains. These curtains were not placed there solely for the purpose of blocking out the light, but also for the purpose of screening the porch from the view of the next-door neighbors, as my bathroom opened out on the porch. They were made of rattan or bamboo and were stained dark green so that they rendered the porch private and at the same time did not exclude the air. Now, by shutting off this extra amount of light that was not needed, all my light came from a point between B and C, — a space about 7 feet wide and 10 feet high. This space is partly screened by a wooden lattice so that my bathroom door at Y cannot be seen from the house next door. The lattice itself makes an excellent diffuser. Now, the lower half of the space described above is covered with a sliding curtain of the black cheese-cloth, the upper half is covered in the same manner with the white cheese-cloth, the curtains being arranged on rings so that they can be moved back and forth in order to increase or decrease the volume of light. After progressing this far in my studio construction I discovered another defect, and immediately set about finding a remedy for it. I found that my sittings could only be made between the hours of nine in the morning and twelve noon, as after that hour the sun shone full on the porch and streaming through the lattice caused my sitter to be lighted in patches like a checker board. In order to overcome this I made two curtains, each 4 feet wide, out of the tracing linen, mounted them on ordinary curtain shade rollers, and placed them in the ceiling of the porch as close to the lattice as possible; now when the sun gets around to my studio all I have to do is to pull down these two curtains in front of the lattice and the checker board effect disappears, leaving in its place a soft, subdued light. If you will study the diagram closely, you will have no trouble in seeing just how I have arranged it all. A to F is one side of the house, A to B, the other side; a–b the background fastened to the side of the house with push-pins; B, C, D, E, and F are the open sides of the porch; R is the reflector (white sheeting on a home-made frame); and Y is the bathroom door. By moving the camera and sitter about and manipulating the cheese-cloth curtains, I can get almost any effect desired.

All of the illustrations accompanying this article were made in my "studio." Illustration No. 1 is the original snap-shot of my " kiddie," and I value it highly because it marked the turning-point in my photographic career; No. 2 is another of the same subject taken with the sun shining on the porch but with the tracing linen curtains pulled down; No. 3 was made on a cloudy day, no sun, and with the cheese-cloth curtains pulled all the way back, to get as much light as possible; Nos. 4, 5, and 6 were made in the morning before the sun reached the porch.

One word more before I close this article, and that in reference to exposure, plates, and development. All of my exposures are short, about one second being the normal; three seconds on a very dull day is the longest that I have ever given. I use an ordinary lens working at f. 8 as the fastest speed, and almost always use this stop. The plate I use is the Hammer Blue Label. I do not believe in changing from one plate to another; all of my negatives are developed with the Hammer two solution Pyro-Metol developer, as given in Hammer's Little Book. I keep my negatives thin and soft, and use nothing but developing paper for my prints. My camera is just the everyday 5 x 7 hand camera with a long bellows draw, rising front, and swing back.

In conclusion I trust that this article will prove a help to you, and that if you have a porch similar to mine, you will lose no time in getting it into shape for your studio.



PEONIES
HARRY D. WILLIAR, BALTIMORE
Second Prize, Monthly Competition

EDITORIAL COMMENT.

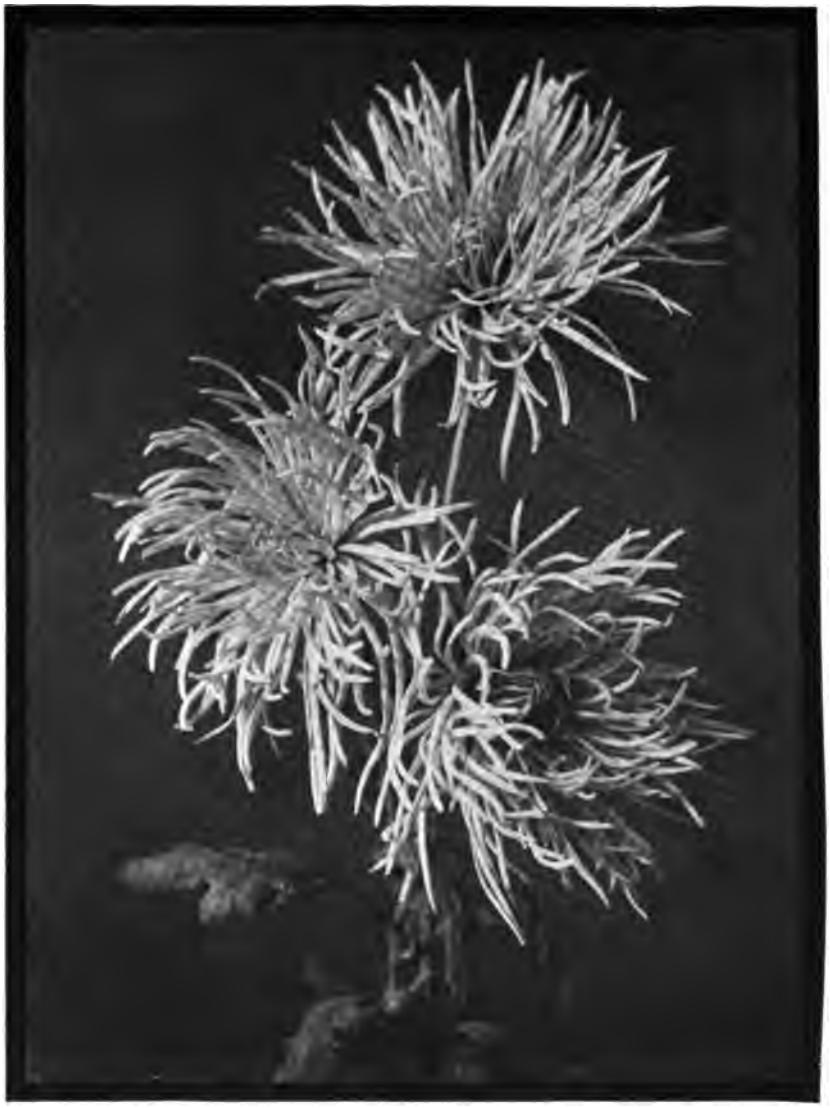
THE BUDAPEST EXHIBITION

WE have published elsewhere in this number a list of the awards given at the important International Photographic Exposition held at Budapest this year. While this was not as large in scope as that held at Dresden last year, being confined to artistic photographs only, in this respect it was fully as great an event. The collections from several countries were even better than those at Dresden, and in all more than four thousand pictures were exhibited. The American pictures were given the most important place, and according to all testimony, well deserved the prominence accorded to them. A proportionate number of prizes have been awarded to this country, and it will be noted that the Photo-Pictorialists of Buffalo received exceptional recognition, two of their members receiving the highest possible award, and a third the second prize gold medal. Mr. W. E. Bertling, also of Buffalo, shared with F. J. Mortimer, of London, the honor of winning two prizes. The Budapest Exposition closed on the 25th of July and arrangements have been made to ship the American pictures to London, where they will be submitted to examination by the judges of the London Salon, who will select a moderate number for inclusion in this exhibition. All the pictures will be retained in London until the close of the Salon, when they will be returned to the United States.

We also announce the rules of the Seventh American Salon. This exhibition seems to be established this year upon a firmer foundation than ever, and to have become a recognized institution in American photography. The pictures this year will be limited to two hundred, and no foreign work will be accepted, making the show national, for the first time in its history. It has attained to high distinction, in that the places of exhibition this year will almost all be Art Museums of the highest rank, and it is hoped that so excellent an exhibition will be got together that next year the Metropolitan Museum of Art of New York may be included in the circuit.

THE ROUND WORLD EXCHANGE CLUB

WE published last month an invitation to those of our readers who were interested to send us their names for the purpose of forming an exchange club, and judging from the number of replies which have already been received, the existence of the club is an assured fact. The process of organization will take some little time, and we not are able to announce the rules this month. We have, therefore, decided not to publish any list of prospective members, but invite our readers who are interested, and who have not yet written us, to let us know of their desire to join the club. Next month we shall begin the regular publication of a department devoted to this club, and wish to have a good list of members to begin with.



CHRYSANTHEMUMS
JOHN MADDISON, MIDDLESBROUGH
Third Prize, Monthly Competition

THE SELF-INSTRUCTING LIBRARY OF PRACTICAL PHOTOGRAPHY

As our readers may discover from the announcement in our advertising section, the opportunity to obtain this excellent work at a reduced price is rapidly approaching an end. At the time when the advertisement was written less than two hundred sets remained to be sold, and it is apparent that the distribution will be completed during the coming month. There is still time for you to make your application, but do not delay; write at once, before the last chance is gone. We would gladly extend this offer, but the fixed limit of our contract forbids. We must stop selling the books when the number we have contracted for is gone.

CHANGE OF ADDRESS

We have had an extremely large number of complaints this summer from readers who feel aggrieved because they did not receive the magazine regularly after having removed to some other place of residence, either temporarily or permanently. Of course a subscriber is entitled to receive as many numbers of a magazine as he pays for, but the duty of the publisher is fulfilled when he has delivered copies subscribed for to the address furnished by the subscriber. The postal regulations of the United States are such that magazines and newspapers are not forwarded by the post-office in accordance with a general forwarding order, unless postage is paid again. In consequence thereof, the reader who removes to a new home, and does not promptly notify the publisher of his magazines, will not receive them. According to the regulations of the department, the postmaster at the office of destination is required to notify the publishers that the magazine remains dead at his office, but this rule is more honored in the breach than the observance by many post-offices. If, therefore, you desire to receive your magazines regularly, please notify us promptly of any change of address, giving both your new and your old residence.

OUR MONTHLY COMPETITION

The subject of this month's competition was flowers. Owing probably to the summer season, the number of entries was not extremely large, nor did the quality average perhaps as high as in our flower competition last year. The prize pictures, however, are of high merit, and are examples of excellent technical work and artistic arrangement. The first and third prizes go to England. Awards are as follows: —

First prize, "Narcissi," by E. J. Brooking; Second prize, "Peonies," by Harry D. Williar; Third prize, "Chrysanthemums," by John Maddison.

Honorable Mentions: "Roses," by George Alexander; "White Clematis," by E. B. Collins; "Red Poppy," by W. Dearden; "Dogwood Tree," by Donald Grey; "Just a Clump of Wild Violets," by Nelson A. Jackson; "Milkweed Pods," by Carl Krebs; "Roses," by C. L. McKibben; "Tulips," by R. L. Stephenson; "Flowers," by S. Takehara; "Daffodils," by James Thomson; and "Mandrake," by E. J. Tuttle.

PERSONAL

The Editor of this magazine will be absent from his desk on a short vacation to southern Germany, during the latter part of August, and most of September. In consequence of this, "Our Portfolio" for September will probably be markedly curtailed, and pictures received after August 10 will not receive criticism until the October or November issue. Letters requiring Mr. Fraprie's personal attention will necessarily remain unanswered until his return, but all business communications will receive their share of attention.

OUR PORTFOLIO.

Prints made by readers will be criticized in this department; none by mail. Prints should be addressed to Frank R. Fraprie, 221 Columbus Ave., Boston, Mass., and MUST be marked "For Portfolio" on back, whether sent for this department only, or for the monthly competitions as well. Only one print by any contributor can be criticized each month. An asterisk is prefixed to the criticism of reproduced prints.

674. **Joseph R. Monfort.** — "Skunk Cabbage." Your photograph of skunk cabbage suffers principally from the inclusion of too much material. If you should trim this down to about 2½ x 3 or thereabouts, it would give a better idea of the plant which you were attempting to photograph. You probably desired to give an idea of the surroundings, but the situation was such that the result was not particularly successful. The fallen log is the principal object of interest, rather than the spathes of the plant.

675. **H. R. Josten.** — "Candytuft." This picture shows under-exposure and over-development. You have not sufficient detail, either in the dark vase or in the whites of the fan and the petals. The arrangement of a plant with crowded panicles of bloom, such as you have here, is rather difficult, and you have placed too many sprays in the vase. A single spray gracefully disposed in a clear glass container would perhaps lend itself better to artistic arrangement.

676. **J. W. A. Cairns.** — "Black-eyed Susans." This picture suffers from very serious under-exposure. The background and the stems of the flowers are one impenetrable gray mass, from which the blossoms stand out staringly. The arrangement is not good. The three or four blossoms in the container are too nearly in a straight line, and this is repeated by another straight line of blossoms across the bottom of the picture. These two lines do not have any natural relation to each other and make an unpleasant discord.

677. **May Hammond.** — "White Roses." The rose garden makes a bower of beauty, and an excellent setting for an outdoor portrait. We would suggest, however, that the result would have been a little more satisfactory if you had placed your camera a trifle farther back so as to include the whole of the seated figure in the picture, and bring it a little farther away from the edge. The balance is not quite right now, because the strong line of the back of the figure runs vertically almost through the middle of the picture. A little more exposure and a little less development would have helped.

678. **L. L. Sumeriski.** — "Narcissus." In many respects this is an excellent arrangement. The spotting is attractive, and the white flower-head comes in a pleasing position. The lighting, however, it seems to us is too contrasty. The strong white lines of light reflected from the foliage, and radiating from a common point, are rather too harsh and strong. You have failed

689. AN UNTIMELY SMILE THOS. MATHEWS

704. WHITE CLEMATIS E. B. COLLINS

principally, however, in the almost entire suppression of texture. The beauty of a successful flower photograph is almost always in its rendering of delicate textures.

679. **J. H. Stockton.** — "In the Harbor." This subject, a vessel lying beside a wharf, is a very hackneyed one, and this particular print does not seem to have any outstanding merit in arrangement or treatment. The interest might have been heightened by reflections, if the water had been calmer, but even this interest is lacking, and the youngster with the bundle over his shoulder seems too manifestly posed to add to the interest of the print.

680. **Daniel Heft.** — Your post-card of a young lady holding a white donkey is very flat. This seems to be due mostly to fog on the print, which may be caused by exposure to an unsafe light or to chemical fog caused by impure developer. The technical work in the negative seems to be fairly satisfactory, although a little more detail in the whites would not be amiss.

681. **John Vormohr.** — Your unnamed print of a bridge, although taken in midsummer, looks as if the trees were covered with snow. Undoubtedly the illumination on these was good, but to get such masses of high light you must have carried the development far beyond the normal and got far too dense a plate. The remedy for this is to use a more dilute developer, working with less contrast, and not carry the development so far.

682. **Daisy R. Gorham.** — "The River's Bend." Your picture of the bend in the river shows a beautiful spot, and a careful selection of the view-point. The lines all run pleasingly into the picture, and the gradations of lights and shadows are well preserved. Even in the dense shadows under the trees you seem to have your values well preserved, and we can commend this as an excellent specimen of landscape photography.

683. **Conway H. Bunnett.** — "A Cool, Shadowy Place." The exposure which you gave to this woodland scene was not sufficient by any means. This is shown both by the pure white of the sky and by the absolute black of the shadows. While the wood was probably very dark, at the same time your eye was able to pene-

703. HARVESTING G. L. PURVIANCE

trate it far more than the picture shows. You should have given at least twice as much exposure as you did, and then would have gotten much more detail in the shadows. The arrangement is not bad, although even that might have been somewhat improved by the elimination of the two Vs which come to a point, one formed by the brook, the other by the sky.

684. E. R. **Lockrow**. — "Sunset." This is an interesting record of clouds, and probably with the contrast which exists between sky and landscape at this time, it would be difficult to get a better rendering of the foreground. In composition, however, this leaves something to be desired, as the strong horizontal lines are not broken by any sufficient vertical. The little patch of white water in the foreground is also distracting.

685. A. **Schnutenhaus**. — Your unnamed mountain landscape was taken on a rather unfavorable day for work of this kind, the haze being of such a character that it suppressed details of the distant mountains to a very considerable extent. The consequence is that the transition between the near foreground and the more distant landscape is so sharp and abrupt that it dominates the whole picture, and cuts it absolutely in two. There is nothing to connect the foreground and the distance, and no line to carry the eye to any point of superior interest. The two little pines growing out of the nearest mountain are decidedly detrimental, as they wholly prevent the eye from traveling onward to the more distant mountains beyond.

686. W. M. **Keheley**. — "The Letter." This snap-shot of two people lying in the long grass and interested in the contents of a sheet of paper is a good record photograph, and shows better technical work than the average. The sky is rather white, and possibly a little more exposure would have been beneficial.

687. E. T. **Goldsmith**. — Your picture of a portion of the steamer "Wyandotte" is rather uninteresting, unless it were taken for the purpose of showing some of the passengers. If intended as a picture of the steamer, you should have endeavored to get more of the vessel in the view. It is probable, however, that you were trying to photograph these passengers, as the camera was evidently pointed upward, which has produced a strong convergence of the vertical lines. The exposure and development are satisfactory, and you have made a good clean print.

688. **Mrs. E. R. Thordenburg**. — "Shearing Sheep at 1:30 A.M." The idea of a photograph taken at 1:30 in the morning seems rather strange, even if your latitude is considerably north of ours. The picture, however, shows no signs of anything unusual in the lighting, and is evidently a snap-shot, as is shown by the position of the men and the sheep. It is an excellent record photograph, and shows good, clean workmanship.

705. IRIS ROY J. SAWYER

697. MANDRAKE F. J. TUTTLE

*689. THOS. MATHEWS. — "An Untimely Smile." It does not seem to us that this smile was untimely, as the expression of both the young ladies is very pleasant, and they seem to be enjoying themselves. We do not quite approve of the manner in which they are posed, equally distant from the camera, in the same position, and exactly in the center of the picture, and think you could easily have obtained a more attractive grouping. The church in the distance is also too light to properly serve as a background for these girls dressed in white. The technical work seems to be very satisfactory, and we can find no fault with the development of the print.

690. C. R. SMITH. — "The Current Issue." This is a good outdoor group, well posed in most respects. We would prefer to see the young man with both feet on the ground instead of having his legs crossed, but this is probably a characteristic pose, unconsciously assumed. Otherwise the work is satisfactory.

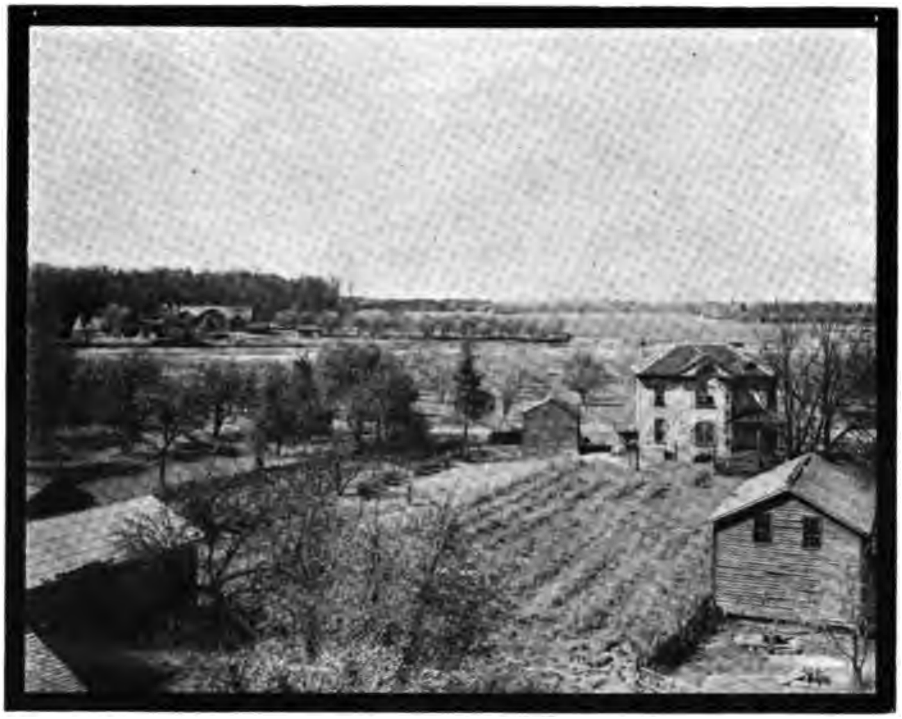
691. JULES A. BOURQUIN. — This picture of the back garden is good straight record photography, showing all the details clearly and fully, with a good lighting and proper exposure. It is a subject, however, which could have only a personal interest, and would not appeal to anybody outside of those interested in the spot where it was taken.

692. JOHN E. WARD. — "Sheep." Your picture contains too many sheep, and they are too much scattered. They evidently were moving rapidly, and your camera has not stopped the motion in all cases. While sheep seem to possess a fascination for the average photographer, it is extremely difficult to make a successful photograph of them, and it is almost essential that they be at rest, or grazing quietly, instead of on the move down a road, as these were. The exposure and print-making show good work.

693. C. W. CRAMER. — "A Rustic Bridge." Your picture of a rustic bridge, while of itself not a bad composition, suffers to an extreme degree from halation. This is the kind of halation which comes from under-exposure against the light and forced development, and would hardly have been perceptible had you given exposure enough. The horizontal line of the bridge rail cutting clear through the picture is a serious defect.

694. H. M. WETMORE. — "The Cascade." This, like most amateur photographs of waterfalls, shows marked under-exposure caused by the effort to stop the motion of the water. If you must do this, use a lens suitable for the work, that is, an anastigmat with large opening, which will let enough light through in a very short time to render the shadow details.

695. J. A. KILCOYNE. — "Picking Cherries." In a subject of this kind you should have made extra efforts to bring out clearly and distinctly the cherries in contrast with the foliage. This could not well be attained from the standpoint you took, where you were photographing against a strong light. Such pictures should be taken against a much darker background, with a side light and a color sensitive plate. Your print shows evidences of under-exposure and the use of too contrasty a printing paper.



696. MY HOME THOS. BRADT

*696. THOS. BRADT. — "My Home." This is a very excellent panoramic photograph, with full exposure, and good rendering of values. It depicts very well a very interesting bit of typical country.

*697. F. J. TUTTLE. — "Mandrake." If your print had not been marked on the outside "Portfolio," it might have been considered with our competition pictures, but as you had plainly put "For the Portfolio" on the wrapper, the print was not opened until after the competition had been judged. You may consider, however, that the print is nearly equal in quality to the prize pictures, and would certainly have obtained an honorable mention. The lighting and arrangement of this excellent group could hardly be improved, and the rendition of light on the filmy petals is especially pleasing. The technical work and mounting are all beyond reproach.

698. CLARENCE A. SWOYER. — "The Old Foot Log." This is an excellent specimen of a most primitive form of bridge, and the negative seems to be a very good one. In printing, however, you have made the result considerably too dark. If this were remedied you would have a most interesting and valuable record.

699. J. J. HEIN. — "River Scene." You have chosen a rather unpromising subject, but in some respects have made an interesting picture from it. The foreground is diversified, and the lines of the picture carry the eye well from the lower left-hand corner through the print. If you had had clouds in the sky, you would have very much improved this picture. The lighting is not the best, as the river bank is in shadow and makes a rather dark spot. If this had been better lighted, it would have improved the picture.

700. W. D. LUNDSTRUM. — Your portrait of a young woman reading on the porch is good outdoor portraiture. The strong light behind the head of the figure was a little unfortunate through the halation that it caused, but on the whole the work is very satisfactory.

701. C. H. FOSTER. — "A Foggy Morning on Bear Creek." You have undoubtedly portrayed fairly well the fog which you saw, but was it worth photographing? Your foreground of tangled brush is monotonous, your bare trees with their finer twigs lost in the mist rear themselves distractingly against a blank white sky, and the distance merges into the depressing whiteness of the mist. You have foreground and middle distance, but no distance, and this lack spoils your picture.

702. WALTER L. BROWN. — "A Corner of the Lake." This is a rather interesting composition, the reflections in the water being a great part of the beauty of the print. We do not like the strong triangle of white sky coming down from the top, and would suggest that you trim about three inches from the top of this print, and a trifle from the bottom. You will then have a

much better arrangement, and a more pleasing picture. The large tree which you have included, leans so much, that it is rather difficult to include it attractively in the composition. Possibly if you had swung your camera a trifle more to the left, it would have helped matters somewhat.

*703. G. L. PURVIANCE. — "Harvesting." This picture shows very good technical work, and is an attractive composition in every respect. The little boy is doing his part nobly, and really acts as if he were working and not posing for the camera. The sky is especially well rendered, with proper gradation and values, something which is rarely the case in "Portfolio" photographs.

*704. E. B. COLLINS. — "White Clematis." This is an attractive and graceful composition, and shows very well the graceful habit of this species. The flowers and leaves spot extremely well, and it must have taken both time and patience to select and arrange a specimen so gracefully and pleasingly as this.

*705. ROY J. SAWYER. — "Iris." This shows very good technical work, the reproduction of the texture of the flower and the leaves being very good.

706. KATHERINE MCMANNESS. — "June Roses." Your June roses are beautiful flowers and attractively reflected in the polished table on which they are heaped, but were they not heaped too profusely? Many flowers do not photograph so well as one or a few, and such massing as this is not adapted to bring out the individual beauty of the specimens.

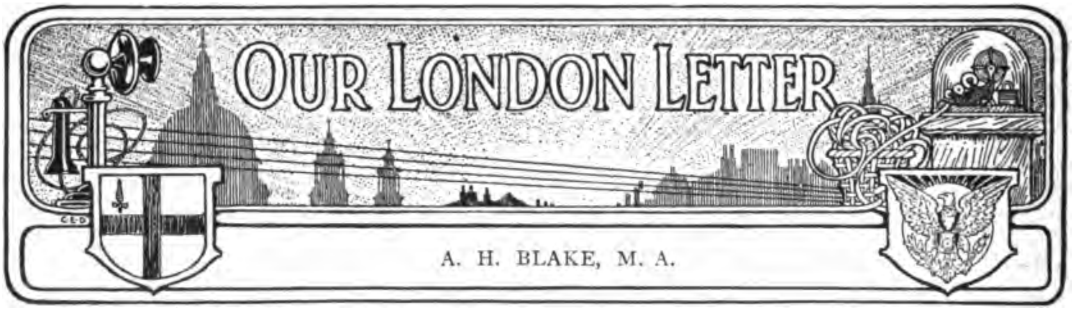
707. WILLARD N. MAULE. — "The Old Mill Wheel." This photograph of a ruin can only be intended to serve as a record. We do not know, of course, what the position of the upright timbers really is, but it would appear as if you had pointed your camera upward too much, and so made your lines converge vertically, when they should be parallel. The exposure and printing are fairly satisfactory.

708. S. HAMILTON. — Your postal card of a park scene with a statue in the foreground is a very good record, showing proper exposure and careful work throughout. It does not possess any particular claims to artistic merit, although the arrangement is perhaps as good as could be made at the locality.

709. FRANK O. NELSON. — "In the Royal Gorge." This picture shows fairly correct exposure, although a little more time would not have been amiss. It does not, however, reproduce in any sense the grandeur or majesty of this scene. This is due mainly to the lack of aerial perspective. The nearest promontory looks as if it were attached to the mountain side in the far distance, and there is absolutely no way of telling whether the two cliffs on the right are equally distant from the spectator, or as they probably are, a long distance apart. Part of this is no doubt due to the clear air, but artistically it would have been better had you chosen a time when the distances were somewhat more clearly separated.

710. F. G. HANNA. — This print is not equal in quality to some of your snow prints which we have previously criticized, being extremely flat and lacking in values. We do not particularly admire the composition, the two trees on the right and left being almost equal in value and equally distant from the edges of the print. The vista through to the background is so confused with the branches in front of it, that it is rather difficult to tell what the picture is meant to show.

(*The Portfolio was closed on August* 3).



OUR LONDON LETTER

A. H. BLAKE, M. A.

As I write this letter, towards the end of July, we are in what may be styled the doldrums of the London photographic world. Not that there is not much going on, but it is mainly active work, the outing or holiday exposure of plates and not the reading of papers or the holding of in-door meetings which can be reported upon. The meetings of the R. P. S. are suspended for the holidays, and even the business meetings are few and far between. In the course of a fortnight, however, we shall be alive enough, for the judging of the Royal will be then imminent and the Salon not far off. Outings and excursions are the order of the day (and night!) since some societies as well as individuals take advantage of the balmy nights of July to have excursions for night photography. Only two days ago I conducted a large party from one of our leading metropolitan Societies "round the town." We started at midnight from Trafalgar Square and made straight for the buildings of the *Morning Post*, where, by the courtesy of the Editor, we were shown the printing of a great

London daily from the setting of the type to the printing, folding, and delivering of the paper ready for distribution at the rate of twenty-five thousand an hour from each machine. This part of the excursion was over about two in the morning, and an hour and a half was then spent in street photography and coffee drinking at the stall opposite the Mansion House. The embankment at sunrise gave many subjects, and so did Covent Garden as the country produce poured in and was unloaded about four o'clock. Such outings are not only productive of original night pictures but are of great interest to those who like to know what is going on "while London sleeps."

COMBINED OUTINGS

While I am on the subject of outings I should like to point out that we are just getting to understand, over here, how interesting and productive it is to hold combined outings of photographers and those bent on the study of historical and archeological subjects. It is an excellent sign of the times that these amalgamated meetings are becoming more frequent, at any rate in the metropolitan area. This movement has been and is of slow growth, but it is most valuable not only to photographers but to those members of other societies who join them in conducting combined half days. It may be worth while to give details of those which I have recently attended on two successive Saturdays as samples of the kind of thing which is being done. The first one was a combined outing of an archeological and a photographic society, and the venue was Deptford, — a dreary enough Thames-side region to-day, but teeming with life, business, and society in Elizabethan and Stuart times, when it was the center of the shipbuilding industry and the seat of the Royal Dockyard. Here were built "the wooden walls of old England," and hence set out those half filibustering expeditions against the Spanish and those voyages of exploration which are so intimately connected with the names of Hawkins, Drake, and Frobisher. We passed down a street with some twenty-eight door hoods carved in his young days by Grinling Gibbons, before he was discovered in this very district by Evelyn, who lived close by at Sayes Court, and introduced him to Charles II. St. Nicholas Church, which was the main objective of the expedition, is not attractive architecturally, but its tower is, in the main, probably, eleventh century, and has been used as a landmark for vessels ascending the river. Here are buried Fenton, who commanded the admiral's ship against the Armada; Hawkins, brother of the admiral; Peter Pett, shipbuilder and friend of Pepys; and Kit Marlow, killed in a drunken frolic by Francis Archer. The other outing was the joint arrangement of a photographic and a record and survey society. Some forty attended, and the object was to explore Richmond and Petersham in their pictorial, topographical, and historical aspects. Permission had been given to visit and photograph houses of great historical interest, while excellent guides, well versed in all the lore of the place, conducted the parties round and read appropriate papers at different points in the route. These may be outings of a suggestive character worth copying, and of their intense interest I can personally vouch when as well arranged as ours were.

THE PHOTOGRAPHIC CONVENTION AT SCARBOROUGH

The Photographic Convention of the United Kingdom has just been holding its annual meetings at Scarborough. Though the place and the arrangements were both such as to favor a record meeting, the attendance was disappointing. Scarborough made an ideal center for photographic work, offering not only the ordinary seaside subjects, but wonderful stretches of moorland in the hinterland, and being in addition near enough to such different work centers, as Whitby and Robin Hood's Bay, for the lovers of the picturesque seaside, and York, rich in architectural opportunities for other workers. The president's address struck a true note at the psychological moment, in my belief, in warning photographers that in neglecting the many other sides of photographic activity in favor of the pictorial they were holding back the whole progress of the art and in addition imperiling their own particular cult. Excellent lectures were in the program from Mr. Snowden Ward on "The Marvels of Photography," which he gave in the States with so much success last winter, and Mr. Martin Duncan on "Ants and Their Ways," which will certainly maintain his already high reputation. One wonders that Martin Duncan has never been in the States. You appreciate a good lecture so much on your side that if you, my reader, have any influence in this matter, you should work to get Martin Duncan to give a tour with his nature lectures; and I promise that if he does he will be wanted each year afterwards, and I can hardly say more. He gives the poetry as well as the strict and stern fact of nature in an inimitable way. Perhaps we may look for a better gathering at next year's convention, as I hear that it will not be held so far afield.

THE LONDON CAMERA CLUB

The London Camera Club has at last materialized, and to-night we have been attending the inaugural dinner and taken possession of the new premises. As far as we were able to judge, before the actual completion of the premises, we shall be fully satisfied with them; certainly the lecture and reading room is a fine apartment, the decoration is in excellent taste, and it should be capable of holding quite a large gathering of members, such as may be expected on lecture nights. The billiard room is also quite excellent, and there is every prospect of our finding the workrooms a great boon. We are badly off in London just now in the matter of accommodation for enlarging and developing if we have not such private arrangements of our own. The shutting up of the Blenheim Club was a great loss in this matter. The studio of the new club is one of its strong features, the walls themselves are excellent as a background, and there is a good supply of background subjects as well as opportunities for doing against-the-light effects in the windows. This should be one of the principal rallying-places of foreigners who visit us in the photographic interest and want to know all that is going on in photographic circles in England. I hear that we are to have several notable men over for the New Salon Exhibition.

PROFESSIONAL NOTES

THE 1910 Convention of the Photographers Association of America at Milwaukee made a showing far better than was anticipated by anybody. Last year at Rochester the association had the largest attendance on record, but this year the paid dues were less than one hundred below those of 1909. As at Rochester, a very large number of demonstrators and dealers were present, it is very likely that more actual studio owners were present at Milwaukee than at any previous convention. The reason for this seems to have been the fact that the convention has not been held in the West for several years, and that that section of the country is at present very prosperous. At the same time, it seems to us to be a mistake in policy to move still farther west next year, to St. Paul. The best possible arrangement would probably be by an alternation between East and West.

One of the most important things done at the convention was the creation of the Academy of Photography on plans formulated by Mr. Hearn. We have not had opportunity to thoroughly study the details of this proposal, and will return to it in a future number. The plan for an academy has been in the air for a number of years, and Mr. Hearn, although he has worked long and hard on the subject, is by no means the originator of the idea. The present academy is the direct outcome of a suggestion made by Mr. John H. Garo, of Boston, to Mr. T. H. Cummings, at one time editor of the *Photo Era*, in 1904. Mr. Cummings appropriated the idea as his own, and a plan for an organization was drawn up in Mr. Cummings' office by the present writer. This plan was urged by Mr. Cummings at the National Convention in Boston, and the idea was referred to a committee of which Mr. Hearn was chairman, since which time Mr. Cummings has disappeared from the situation, and Mr. Hearn has developed the idea to its present acceptance.

The officers elected are G. W. Harris, of Washington, president; Ben Larrimer, of Marion, Ind., first vice-president; Charles F. Townsend, of Des Moines, Ia., second vice-president; Manly Tyree, of Raleigh, N. C., secretary; L. A. Dozer, of Bucyrus, Ohio, treasurer.

B. J. Falk and Pirie Macdonald, of New York, were elected honorary members of the association for their work in connection with the enactment of the new copyright law, with its protection for photographers. The revised constitution proposed at Rochester last year was adopted. The association also voted to found a Progress Medal to be awarded each year to the photographer of the whole world who has done the most for the advancement of photography during the year.

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THE New England Convention, which was held in Boston on July 26, 27, and 28, while not as well attended as was the case a few years ago, was an improvement in this respect over last year, and showed that the photographers of New England are beginning to feel a little enthusiasm again. The number of manufacturers present was rather small, but the association's finances are in good shape, and it has about forty members more than last year.

A surprise was in evidence when the officers were elected. J. H. Garo, who had been asked to run for president, had declined, and his name was not upon the official slate, but his friends persuaded him to accept the offer just as the nominations were presented. Mr. Holman, the regular candidate, withdrew his name, so that Garo was elected by acclamation. The list of officers is as follows: President, J. H. Garo, Boston; first vice-president, F. A. Frizell, Boston; second vice-president, J. P. Haley, Bridgeport, Conn.; secretary, George H. Hastings, Haverhill, Mass.; treasurer, W. H. Partridge, Boston; vice-presidents, for Connecticut, G. H. North, Norwalk; for Maine, L. G. Gerry, Sanford; for New Hampshire, H. H. Langill, Hanover; for Rhode Island, Bert Horton, Providence; for Vermont, A. Allyn Bishop, Newport; for Maritime Provinces, J. Y. Mersereau, Chatham, N. B. The convention next year will be held in Bridgeport, Conn., and as the National Association will be in St. Paul, it is expected that the New England meeting of 1911 will draw a record-breaking crowd. The list of prize winners is as follows: —

Grand Portrait Class, open to all the world, H. Hoffman, of Philadelphia, for the portrait of a "Grand Old Man." New England Portrait Class. — First prize, A. Allyn Bishop, of Newport, Vt.; second, J. P. Haley, of Bridgeport, Conn.; third, W. B. Davidson, of Narragansett Pier, R. I. Genre Class. — First prize, George E. Tingley, of Mystic, Conn.; second, W. B. Davidson, of Narragansett Pier, R. I. Landscape Class. — First prize, W. B. Davidson, of Narragansett Pier, R. I.; second, C. Edward Powers, of Milford, N. H. State Portrait Class. — Maine: First prize, Walter Fenley, of Portland; second, S. E. Mathews, of Portland. New Hampshire: First prize, Claude L. Powers, of Claremont; second, Manahan Studio, Hillsboro. Vermont: First prize, A. Allyn Bishop, of Newport; second, W. G. Freeman, of Bellows Falls. Rhode Island: First prize, Albert Vandall, of Pawtucket; second, Jean L. Harbeck, of Pawtucket. Connecticut: First prize, George E. Tingley, of Mystic; second, C. S. Cochrane, of Bridgeport. Massachusetts: First prize, W. H. Partridge, of Boston; second, A. E. Whitney, of Norwood. Maritime Provinces: First prize, Charles A. Conlon, of St. Johns, N. B.; second, G. A. Garvin, of Halifax, N. S.

SOCIETY NEWS.

A Proposed New Slide Interchange. — The Missouri Camera Club of St. Louis, Mo., through the chairman of its Lantern Slide Committee, Mr. C. F. Bartlett, is sending out a proposition for the formation of a Lantern Slide Interchange Association restricted to the central portion of the United States, such as Chicago, Milwaukee, Toledo, Akron, Detroit, Pittsburg, Baltimore, and other places, as may seem feasible. The movement of the slides is to be directed from some central point, but the expenses are limited to express charges at the time the sets are received.

Each club is to have its own standard of competency in furnishing a set of slides for the interchange. In respect to their own club, when preparing a set, they have a trained artist pass upon the pictorial merit of the slides and a committee of the members to judge the technical feature. The idea in mind is to produce a set of good slides having both features.

The purpose of the club is a most laudable one, and should be encouraged. It is to be hoped their own set will exhibit what can be done in the way of careful selection and the judging of slides.

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We reprint herewith the announcement of the Seventh American Photographic Salon. We are not yet informed as to the dates on which the salon will be open. Entry blanks may be obtained from the secretary, C. C. Taylor, 3223 Cambridge Avenue, Toledo, Ohio.

The Seventh American Photographic Salon will be shown for seven months in the principal cities and Museums of Art in the country, including The Carnegie Institute, Pittsburg, The Art Institute, Chicago, The Museum of Art, Detroit, The Institute of Arts and Sciences, St. Paul, The Museum of Fine Arts, St. Louis, The Museum of Art, Toledo, The Herron Institute, Indianapolis, and at Philadelphia, Racine, Jamestown, and possibly at Washington, Baltimore, and Denver.

We are not yet prepared to announce the jury, but it will be made up of artists and art experts of international reputation.

The Seventh Salon will be devoted entirely to the work of Americans, making it an American Salon in fact as well as in name. The exhibit will be limited to two hundred prints and the standard will be higher than ever before. There are enough good workers in this country to make the salon one of the great art events of the coming season. We want your help and interest to assist in making it so good that the Metropolitan Museum will want it in New York in 1911. They would have taken it this year had not their limited transient galleries been overcrowded. As it is it will go to most of the important museums of the country and will be viewed by over one hundred thousand visitors. In the interest of art development, appreciation, and education in our country, will you not give us your earnest help to the end that the Seventh American Salon may be an artistic triumph?

CONDITIONS.— 1. Entries must be sent to the American Federation of Photographic Societies, care Museum of Art, Toledo, Ohio, to arrive not later than October 1, 1910.

2. All prints submitted will be passed upon by a jury composed of artists of note, and several of the directors of Museums of Art in the United States.

3. Each entrant may submit any number of prints, but not over FIVE PRINTS by any one person will be finally accepted by the jury.

4. No work will be accepted which has been hung in former salons conducted under the auspices of the Federation.

5. All prints must be sent suitably framed, except that work coming from west of Denver, Col., may be sent unframed and the administration will frame accepted work at expense of exhibitor, frames to be returned to exhibitor at his option.

6. On the back of each print or frame submitted, must be affixed a slip bearing the name and address of the entrant and the title of the picture.

7. A list of titles must be sent separately, by mail, to the Secretary of the Federation, giving the name and address of the sender, and the price of each print, if for sale.

8. Each entrant must pay the expense of transportation of his or her prints to and from the city in which the salon is assembled. Pictures will be returned to owners at the end of the exhibition season. A commission of fifteen per cent will be charged in case of sales.

9. Do not put hooks, eyes, wire, or anything to hang pictures with, on frames. A large number of frames received in the past years have been badly marred and some broken by screws-eyes.

10. Entrants should take particular care to give exact post office address, street and number, etc., this to avoid confusion when corresponding with the entrant.

Entries may be forwarded to any of the following addresses: —

Fayette J. Clute, care Camera Craft, San Francisco, Cal. George B. Goodwin, Wisconsin Camera Club, Milwaukee, Wis. George E. Elmberger, 87 E. Lake Street, Chicago, Ill. E. G. Fountain, 203 Chamber of Commerce, Cleveland, Ohio. E. C. Brooks, 3546 Washington Avenue, St. Louis, Mo. William H. Zerbe, 345 Spruce Street, Richmond Hill, L. I., N. Y. R. L. Sleeth, 804 Home Trust Building, Pittsburg, Pa., or direct to American Federation of Photographic Societies, Toledo Museum of Art, Toledo, Ohio, U. S. A.

* * *

As the Detroit Camera Club has not been in existence long enough to get together a collection of its members' work, they exhibited, during the month of July, at the Detroit Museum of Art, a collection of prize pictures made by members of the Round Robin Guild. Much interest was displayed by the art lovers and photographers of the city in this interesting collection. The membership of the club is enthusiastic, and arrangements are being made to have a members' exhibition in the late winter or early spring.

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WE are informed that a new club, called the Columbus Photo-Pictorialists, has been formed to succeed the Columbus Camera Club. Club rooms have been opened with an equipment equal to any in the country, and the address of the club is Rooms 225-7-8 Hayden-Clinton Bank Building, 20 East Broad Street, Columbus, Ohio. The officers for the current year are as follows: A. L. Kidd, president, Adolph Keller, vice-president, C. L. McKibbern, secretary, W. C. Dunn, treasurer.

* * *

THE Russian Photographic Society of Moscow is arranging an International Photographic Exhibition to be held in that city during March and April, 1911. During the course of the exhibition there will be held the Third Russian Congress of Photography, which is expected to bring numerous workers to the city. As charges will be made for hanging pictures, amounting to over $1 for a single print, it is hardly to be expected that many Americans will participate, but full rules may be had by addressing the Exhibition Committee, Russian Photographic Society, Moscow, Russia. All entries must be made before December 1, 1910.

* * *

PRIZES awarded at the International Photographic Exhibition at Budapest, 1910.

State Diplomas: J. Craig Annan, Glasgow; F. J. Mortimer, London; J. Dudley Johnston, London; Alexander Keighley, London; E. O. Hoppé, London; F. Austin Lidbury, Niagara Falls; Aug. Thibaudeau, Niagara Falls; Rudolf Dührkoop, Berlin; Lehr- und Versuchanstalt für Photographie, etc., München; Frank Eugene Smith, München; Schlosser & Wenisch, Prag; Léonard Misonne, Gilly; Sergius Lobowikoff, Wjatka; Rudolf Balogh, Budapest; Emil Rosenberg, Budapest; György Haranghy, Debreczen.

Gold medals: Frank H. Read, London; J. C. Warburg, London; W. H. Porterfield, Buffalo; Robert Montgomery, Brooklyn; W. E. Bertling, Buffalo; Nikola Perscheid, Berlin; Otto Scharf, Crefeld; Hugo Erfurth, Dresden; Emil Lichtenberg, Osnabrück; Otto Erhardt, Coswig; Alfred Erdmann, München; Karl Prokop, Wien; Dr. Theodor Mayer, Wien; Dr. Feri Angerer, Wien; Gustav Mauthner, Wien; Dr. Heinrich Bachmann, Graz; Therese Zuckerkandl, Prag; Russi Aragio, Triest; Ernst Blazek, Prag; Robert Demachy, Paris; Jean Seiberth, Basel; B. Zweers, Haarlem; C. Frederiksen, Kopenhága; Nikola Petrow, Kiew; Imre Belházy, Budapest; Erzsi Gaiduschek, Budapest; Olga Máté, Budapest; Aladár Székely, Budapest; Hugó Weisz, Arad.

Silver medals: Mrs. G. A. Barton, London; Henry Berger, Jr., Portland; Elias Goldensky, Philadelphia; Wm. Shewell Ellis, Philadelphia; R. L. Sleeth, Wilkinsburg; F. Schensky, Helgoland; Stephanie Ludwig, München; S. Jaffé, Posen; Wanda Debschitz-Kunowski, Berlin; Aura Hertwig, Charlottenburg; Grete Back, Dresden; Albert Mayer, München; J. W. van der Heide, München; Friedrich Ott, München; Gustav Leinenweber, München; Baronin W. von Riederer; Max May, Hamburg; Rudolf Gross, Wien; Nikolaus Schindler, Wien; Dr. Adolf Gtaettner, Wien; Ludwig David, Wien; Dr. Adolf Ledenig, Graz; Dr. Lodovico Diem, Triest; Alfred Bayer, Wien; C. Puyo, Paris; A. Joffret, Marseille; H. Staehlin, St. Gallen; Emil Suter, Basel; Phil. & Ernst Linck, Zürich; Anthony Van Dijk, Amsterdam; D. de Jonge, Amsterdam; G. Middendorp, Hilrersum; G. Th. Sörensen, Kopenhagen; Th. Larsen, Tunsberg; A. W. Rahmn, Malmö; Wladimir Schochin, Helsingfors; Zoltán Kiss, Szombathely; Aladár Mokry, Budapest; Jaques Faix, Arad; Marton Matuschik, Arad; Bohus László Báró, Budapest; Nándor Hegedüs, Budapest; C. Guido Horváth, Budapest; Odön Heidelberg, Budapest; Dénes Ede Ronai, Eger; A. Pál Veres, Budapest; Lipót Wornitzer, Budapest.

Prizes offered by the Archduke Joseph: József Pécsi, Budapest-München; F. J. Mortimer, London.

Prizes offered by the Ministry of Agriculture: W. E. Bertling, Buffalo.

Prizes offered by Mr. Lippich Elek Koronghi: Zoltán Révész, Budapest.

Prizes offered by Mr. Miklós Zsolnay: Erwin Kankowsky, Budapest.

Prizes offered by Mr. Viktor Hoffmann: Arthur Grabovszky, Budapest.

* * *

The ninth annual exhibition of the Wilkes-Barre Camera Club was held from May 9 to 16, 1910. The judging as usual was done by Sadakichi Hartmann, who awarded certificates as follows: "Summer Landscape," W. H. Evans; "Rainy Day," S. H. Gilbert; "Cripple Creek," O. C. Hillard; "Dusk" and "Woman with a Hoe," R. S. Kauffman; "A Foggy December Day," Adam Kraft; "Faithful," R. L. Litch; "Indian Summer," George W. Leach, Jr.; "Snow Shadows" and "Snow and Mist," L. T. Mead; "Portrait of Miss S.," Louis Mendel. We have had half-tones made of some of the exhibited prints, and hope to reproduce them in our next issue.

* * *

At the United Provinces Exhibition, to be held in Allahabad, India, from December 1, 1910, to February 28, 1911, there will be a special building devoted to photography, but open only to pictures taken in India or Burma. Full particulars may be had from Frank Luker, honorary secretary, Photographic Salon, United Provinces Exhibition, Drummond Road, Allahabad, India.

CHAS. E. DAWSON.

OUR TABLE.

Material for examination and books for review may be sent to Frank R. Fraprie, 221 Columbus Ave., Boston, Mass. Any book reviewed will be supplied by our Boston office at the price mentioned.

With Other Photographers. By Ryland W. Phillips. Published by the Eastman Kodak Company, Rochester, N. Y., 1910. Price, $2.50.

"Ry" Phillips' book has been announced to the public for some time. Its maker has been for years collecting the material here used, and has given lantern slide lectures embodying this material, at various times and places. In consequence the entire photographic profession has been anxiously awaiting the publication of this sumptuous volume. Their patience is well rewarded. We do not know of any book yet published which will be of so much practical, everyday value to the professional photographer, and, for that matter, to the amateur who wishes to make portraits, as this. Mr. Phillips' ideal has been, in the case of each photographer, to get a photograph of the studio while the sitter was posed, showing the camera, the sitter, the skylight, the background, the screens and reflectors, in short, the whole material of picture making: a print from the untouched negative showing its faults of gradation, its rendition of freckles, of physical defects, etc.; and finally a worked up and mounted print, such as the photographer delivers to his customer. This ideal has not been attained indeed in every case, but for the majority of the workers, such is the presentation of the material. It is needless to say that such a presentation of the work of twenty-five of the foremost photographers of the United States is full of possibilities for every photographer. He is sure to get ideas from every page of this book, which will teach him how to handle awkward lights, how to make the best of difficult sitters, how to present his prints to get the most artistic result and the highest price. The illustrations are well chosen. In almost every case the finished print is one which would receive high honor in an exhibition, and the illustration of the different phases of such pictures is doubly interesting. It is idle to attempt to single out any particular print for mention. They are all good, and well worth careful study. The professional photographer who does not acquire this book is not alive to his opportunities.

* * *

WE have received from Burroughs, Wellcome & Company a number of interesting books published in French for distribution at the Universal Exposition at Brussels this year. They include a descriptive catalogue of scientific materials shown by them, and descriptions of the Wellcome Research Laboratories of Chemistry and Physiology. In addition is an excellent little booklet "How to attain Perfection in Photography," translated from a similar one in English. We assume that the readers who are particularly interested in any of these booklets can obtain copies of them by addressing the London office of Burroughs, Wellcome & Company, Snow Hill Buildings, London, E. C., England.

* * *

IN LOTUS-LAND JAPAN. By Herbert G. Ponting, F. R. G. S. Macmillan & Co., London and New York, 1910. Price, $6.00 net.

When a traveler has attained to the dignity of a Fellow of the Royal Geographical Society, it may safely be assumed that he has seen many strange sights, and can write out of the fulness of experience. Such a man is Mr. Ponting. For years he has been globe trotter, war correspondent, photographer. He has traveled to the uttermost parts of the earth, with his camera, but it is safe to say that nowhere has he found more beautiful subjects to photograph than in quaint Japan. He does not claim to be a writer, but he is, it seems to us, too modest. The book is well written, because the author is enthusiastic about what he has to describe. It is, to be sure, written more or less about the pictures, but the pictures are well worthy of it. There are eight of them in color, and ninety-six in monochrome, and rarely have we seen a book illustrated better than this one. The frontispiece is one of the most charming pieces of hand-colored photography that has ever come beneath our notice. It depicts three Japanese maids seated on a platform above a pool, under a glorious canopy of wistaria. It is perfectly composed, and magnificently and delicately colored. Not all of the colored illustrations are up to the level of this, and on the whole we believe that it is well that the majority of the pictures are in monochrome. They do not need the adventitious aid of color to fully convey the impression of beauty which the author has desired to give. They depict all phases of life in Japan, the arts and industries of the people, the life of the home and of the street, and most often and most interesting, the landscape glories, natural and artificial, of fair Japan. Especially does the author love Fuji-Yama, or Fuji-San as he by preference calls it. He shows it in all manners, very near and very far, mirrored in quiet waters, veiled with mist, glimpsed through rugged pines, buried in the approaching storm. He describes an ascent of its tremendous snows, a labor of no little difficulty, especially to one burdened with a heavy photographic outfit. He climbed the mountain in a storm and spent four days upon the summit, and his description of the experience is well worth reading. A very interesting chapter is that on Japanese women, in which he corrects many popular misapprehensions in regard to Japanese women, especially the geishas, whom he desires to free from the evil repute in which foreigners often hold them. Another interesting description is that of his photographing the crater of the volcano Aso-San. While upon the summit of this mountain, he had the fortune, good or bad as one may decide, to be present at an eruption. It is not every photographer who can boast of having stood upon the brink of a crater, and waited for the stones, which had just been thrown up, to come down, wondering through which part of his anatomy they might pass. By good fortune the main force of the explosion was in another direction, so that he and his party escaped death from the falling stones, only to be almost suffocated by the sulphurous smoke. The ruling passion, however, is notoriously strong even in death. Mr. Ponting, unwilling to lose the chance of obtaining photographs of the beautiful smoke effects, pursued at the top of his speed his fleeing coolies, relieved them of his cameras, and proceeded to photograph the eruption. The result is reproduced, and it is certainly a most remarkable picture. We might continue to select incidents from the book *ad infinitum*, but we prefer to advise our readers to purchase it and obtain from it the pleasure which we have had.

* * *

WITH THE CAMERA. — Notes from the Illinois College of Photography, and the Bissell College of Photo-engraving, Effingham, Ill. Mr. Thomas Henning, student of 1902, has just been elected vice-president of the Iowa State Photographers' Association. Mr. Russell Hamilton, of Toronto, student of 1906, spent a couple of weeks in Effingham last month visiting the college and friends in this city. Mr. Bissell has just returned from the thirteenth annual convention of the International Photo-engravers' Association, at Buffalo, where he gave a talk.

Graduates for July were Miss Helena Eddy, Mr. R. L. Goer, Mr. P. W. Rumsey, and Miss Ethel Rumsey. The College Camera Club held its monthly salon and reception on the 22d at their club rooms. It was an enjoyable social affair and first and third prizes were awarded to Miss Maude Van Borssum and second prize to Miss Gladys Scott.

* * *

We are advised by the Wollensak Optical Company, that as a result of their very effective display at the Milwaukee Convention they have had a steady stream of orders for Vitax lenses from professionals attending the convention, who were greatly impressed with the high qualities of this American lens.

We reproduce herewith a portrait of Mr. Herbert G. Ponting, F. R. G. S., Official Photographer to the British Antarctic Expedition, 1910, from a photograph taken in the hold of Captain Scott's ship the "Terra Nova" on the day she left London (June 1). This photograph was developed with "Tabloid Rytol," the developer upon which Mr. Ponting has decided torely entirely for all his work.

Burroughs, Wellcome & Co. have supplied all the photographic chemicals for this expedition, as they did for Sir E. Shackleton's.

* * *

The G. Cramer Dry Plate Company, St. Louis, Mo., has just published a booklet entitled "Isochromatic Landscape Photography." This not only sets forth the qualities and uses of isochromatic plates and color filters, but embodies in a series of questions and answers the points on which thousands of photographers have asked information in the last few years. A perusal of this booklet, which will be sent free to our readers on request, will certainly give them much information, and resolve many doubts on color-sensitive plates.

* * *

In the little town of Suessen, Wuertemberg, Germany, on July 25, 1830, was born one who has done most to make Rochester famous throughout the world as the manufacturing center of optical instruments, and one, also, who enjoys the reputation of being one of the wisest and most benevolent employers in the country. That man was John Jacob Bausch, and he has just celebrated the eightieth anniversary of his birthday in a characteristic manner by contributing $10,000 to the fund established by the late Henry Bausch for the aid and relief of such employees and their families as may be in need, and by granting a holiday to all of the workmen with full pay.

Mr. Bausch is known in business and scientific circles throughout this country and Europe as the founder and the head of the famous Bausch & Lomb Optical Company, and in having rendered a great service to all persons suffering from defective vision, especially in America, in first bringing lenses for the eye to perfection. Besides having benefited science to no small extent by developing to a point of accuracy and being the pioneer manufacturer of magnifying glasses in commercial quantities that made their extended use in schools practicable, his half a century of tireless and intelligent efforts in bringing to a high state of effectiveness the means by which millions of persons with poor eyes can overcome this serious handicap in life has caused him to be regarded as a public benefactor.

Despite his four score years of unusually active life, Mr. Bausch is still in excellent health. He is at his office almost every day and takes a lively interest in all of the phases of the enormous business and progress of his company, although his chief concern is still the department of spectacle lenses, magnifiers and readers, for in the former he achieved his first success.

His counsel is still sought by his younger business associates, and he is a regular attendant at all business meetings of the company. Early and late he is to be found at the factory, which stands as a monument to his industry and energy.

Mr. Bausch was waited on in his home, on the morning of July 25, by a delegation of the 1900 employees, consisting of W. D. Wishart, chairman, G. E. Flad, F. Herbst, J. Dentinger, J. L. Kirchmaier, J. Hammele, P. Lemke, W. Allen, William Marth, E. Hilgenreiner. Mr. William Marth as spokesman presented to him a solid silver humidor, 18 inches long and 12 inches high, made by Gorham, a facsimile in miniature of the factory in 1865. It was a simple, one-story structure, rectangular in shape, with a gable roof and two chimneys. This lent itself admirably to the purpose of reproduction. The roof forms the cover of the humidor, one chimney serves as a cigar cutter and the other as a lighter. Over one of the two doors is the sign "Bausch & Lomb Optical Institute," as the company at that time called itself.

The inside of the cover bears a representation of the present plant and the following inscription: —

"PRESENTED TO MR. J. J. BAUSCH
BY THE EMPLOYEES OF THE
BAUSCH & LOMB OPTICAL CO.
TO COMMEMORATE
THE EIGHTIETH ANNIVERSARY OF HIS BIRTH
JULY 25th, 1910."

Mr. Bausch responded feelingly, recalling incidents connected with the little old building and the early days of his career.

By his benefactions and his considerate treatment of his employees, Mr. Bausch has always enjoyed the most cordial and mutually helpful relations with them. On the anniversaries of both his sixty-fifth and seventy-fifth birthdays he gave to each employee a week's extra pay in appreciation of their loyalty, and on the fiftieth anniversary of the founding of the company he celebrated it by reducing the number of hours of a day's work in the shops of the company from 10 to 9, continuing wages at the same figures. He is also a large contributor to a fund which is maintained by the Bausch and Lomb families connected with the plant for taking care of employees in need in special cases that do not come within the constitutional rights and duties of the Mutual Benefit Association, which is maintained by the company and the employees. Moreover, he and Captain Lomb privately and the company established in 1900 a fund to assist in providing a comfortable future for employees who have been in the service of the company many years. It is, in fact, a pension fund.

Mr. Bausch has been president of Mechanics Savings Bank for several years, and has long been its oldest director. He also belongs to numerous organizations for the promotion of public welfare in various directions.

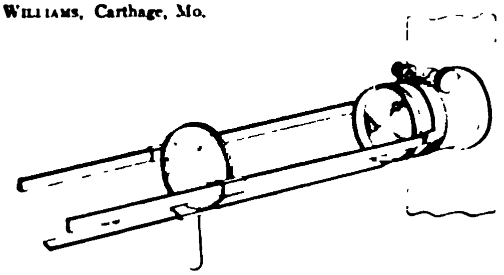
RECENT PATENTS.

CHAS B. DAWSON.

Abstracted by F. C. Beach. Copies of any of these patents may be obtained at 10 cents each from Munn & Co., Patent Solicitors, 361 Broadway, New York City.

April 5, 1910.

953,879. ATTACHMENT FOR LENSES. FRANK U. WILLIAMS, Carthage, Mo.



It consists of band clamped around the lens tube. Projecting from the band outward are three horizontal guide rods to support an adjustable lens. In this case it is a reading glass lens showing the handle below. This lens acts as a disperser of the rays of light coming from the object to be photographed, varying the focus in the camera to suit any desired size of the image wanted. In enlarging from a negative located in the back of the camera it changes the length of the focus to suit the size of the image on the enlarging board or easel.

June 28, 1910.

962,788. PHOTOGRAPHIC EMULSION. YORK SCHWARTZ, Hanover, Germany.

The patent relates to a phosphate of silver emulsion and is described in the claims as follows: —

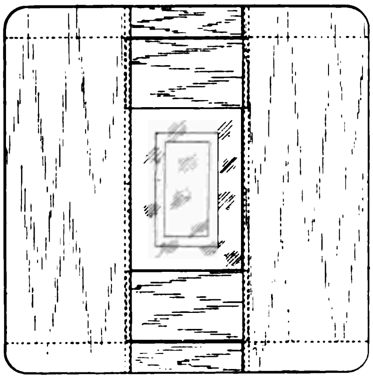
1. A photographic emulsion formed by the mixture, with a colloidal substance and silver nitrate, of a quantity of alkaline phosphate in considerable excess of that required to decompose the whole of the silver nitrate, with an oxidizing agent and a substance acting as a solvent for the phosphate without decomposing the same.

2. A photographic emulsion formed by the mixture, with a colloidal substance and silver nitrate, of a quantity of alkaline phosphate approximately double that required for the decomposition of the whole of the silver nitrate, with an oxidizing agent and a substance acting as a solvent for the phosphate without decomposing the same.

3. A photographic emulsion formed by the mixture, with a colloidal substance and silver nitrate, of a quantity of disodium phosphate approximately double that required for the decomposition of the whole of the silver nitrate, with chlorate of potassium and citric acid, whereby an emulsion is produced having as one of its principal constituents a phospho-citrate compound.

July 12, 1910.

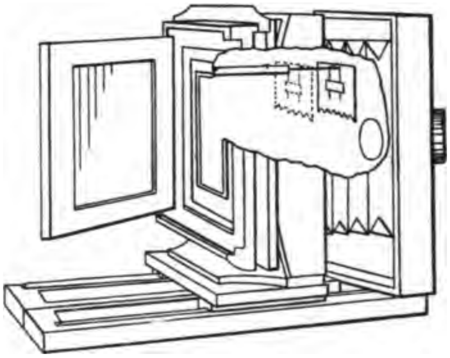
963,940. PRINTING FRAME. George W. Ray. Philadelphia, Pa.



The base part of the frame is made somewhat larger than usual, and has a longitudinal opening with grooved edges for sliding in from one end the frame (like a kit) for holding the negative. There are opaque wood shields with flat friction springs on each edge which slide in the grooves, to properly center and lock the frame or kit holding the negative The usual hinged back of the printing frame is placed over the paper after it is put on the negative and locked. Different wood shields may be used to suit varying sized negative frames or kits. By this arrangement a border may be made around the picture with a shaded or tinted ground beyond the border all at one printing.

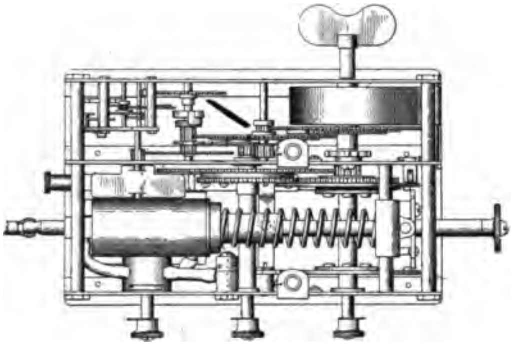
964,085. PHOTOGRAPHIC VIGNETTING MACHINE. William Butters Benton, Wisconsin.

A horizontal tube is attached to the rear end of the inner back frame of the camera. A rod slides in this tube which supports at its forward end, towards the lens, a fork-shaped vertical support on which is a vertically slidable vignetting screen. The screen may be adjusted nearer to the back of the camera, as shown by the dotted lines, or closer to the lens and vertically on the fork portion, to cut off or include more of the figure on the screen by reaching the hand through the rear opening of the camera and sliding the screen upward or downward to suit the object to be photographed.

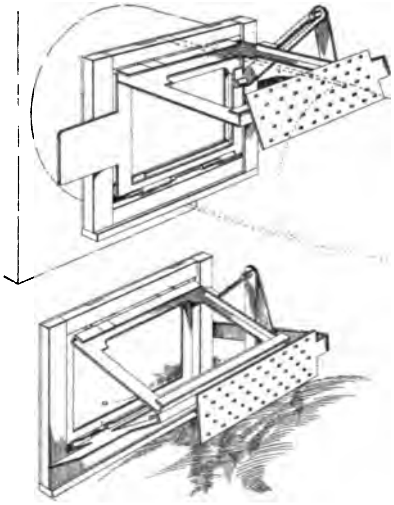


964,318. AUTOMATIC SHUTTER-CONTROLLING MECHANISM FOR CAMERAS. Siegmund Roesner, Chicago, Ill.

The mechanism is too complicated to be fully described, but involves two or three ideas which may be briefly stated. There is a main clock-propelling arrangement for actuating a train of gears and pinions which is set in motion by working a release lever. It is arranged, in case the operator with his friends desire to be in the picture, for the shutter to operate after a period, say, of seven minutes. Just before the shutter is to open a signal rises above the enclosing box, to notify that the exposure will soon occur, then a latch is released from the shaft of a spring-pressed air plunger or pump which by its sudden impulse forces the piston forward in the larger cylinder, causing the air to pass out at the right end into the flexible pneumatic shutter tube shown at the left, which opens the shutter for an exposure. A rotary valve holds the air in the shutter tube for the right length of time, then allows the air to escape and the shutter to close, at the same time another target or signal flies up to notify the persons photographed that the exposure is over. There are certain devices for making quicker exposures, and of various lengths of time. The spring air-pressing piston is drawn outward to the right by the hand until it is locked in position for another exposure. The illustration is a top view looking down upon the mechanism.



964,350. SLIDE CARRIER FOR MAGIC LANTERNS. Lester L. Welsh, Emporium Penn.



In the dotted line of the upper illustration which represents the objective, the upper slide frame is shown in horizontal position with the perforated interposing screen out of the way, which allows the slide in the vertical frame to be projected on the screen. During this time the slide in the upper horizontal frame is removed and a new slide is put in. The lower view shows the way the slides change places and how the perforated screen in front of the light produces a dissolving effect. One lantern slide frame is hinged at the bottom of the fixed frame and the other slide carrier is hinged at the top; as the latter swings down from a horizontal to a vertical position, the slide frame hinged at the bottom drops down till it lies flat, while the light diffuser also is below the line of light projection. While the lower carrier is in this position the previous slide is withdrawn and a new one inserted to be exhibited. The slide holders or carriers are worked by a lever, connecting-rods and pivots on the right of the main frame, as well as the perforated light diffuser.

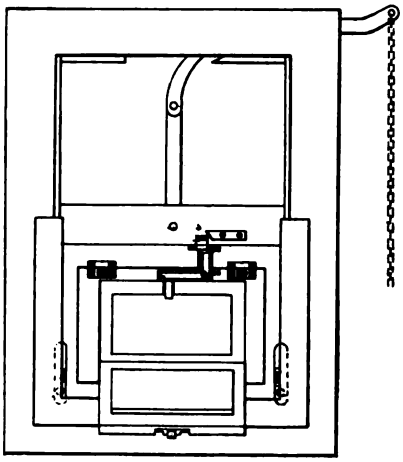
This arrangement necessitates quite a little open space between the condenser and the objective, but is a simple, unique way of producing a dissolving effect and of changing slides without having to reach over the house of the lantern.

964,381. TRIPOD. John D. Boyd, Pittsburg, Texas.

The purpose of the invention is to make a tripod in the form of a cane that can be easily carried about. Over the head of the tripod is an oval-shaped hinged cap, having a recess in the center to accommodate the projecting tripod screw. The head itself may be adjusted vertically on the tripod shaft by other screws to allow the tripod screw to project more or less above the tripod head, for heavy or light cameras. The lower legs of the tripod slide upwards within the upper portion of the legs and are then covered with a metal cap at the bottom, having in its upper periphery a bayonet-shaped aperture to lock over the shafts of the tripod adjusting screws. This cap is put in the pocket when the tripod legs are extended.

July 19, 1910.

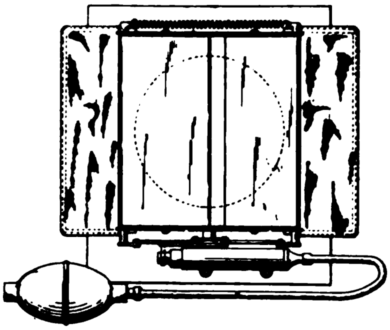
964,748. PHOTOGRAPHIC PRINTING DEVICE. Solomon D. Butcher, Kansas City, Mo.



It consists of a large outer frame, having a pivoted operating shutter lever at the upper right-hand corner, with the end projecting beyond the frame, from which end depends an operating chain which may be connected to a foot pedal. The inner end of the lever is attached to a connecting rod, pivoted at its lower end to a vertically sliding shutter, held closed downward by two spiral springs. Pulling on the lever downward raises the shutter to any desired height for exposing. Inserted on the other side of the main frame, in a rectangular pocket, and clamped against the frame adjoining the shutter by two flat springs, is the regular printing frame holding the negative. The back of this frame is hinged at the bottom so it may be thrown outward; it is held locked by two spring catches. The back has an inner concentric section which also is hinged and opens outward. The main back frame secures the negative in the frame, the smaller opening is for the insertion of different mats over the negative and the sheet of sensitive paper. The inner back is turned down, as shown in the illustration; the fresh sheet of paper is inserted, the back is closed, and the exposure made by pulling down on the lever chain. As the shutter drops, a lug on its lower end strikes a bell crank lever, which releases the frame back and the hinged spring causes the same to fly outward. A special finger on the back carries with it the exposed sheet so that it is easily removed, and a fresh sheet is quickly put in.

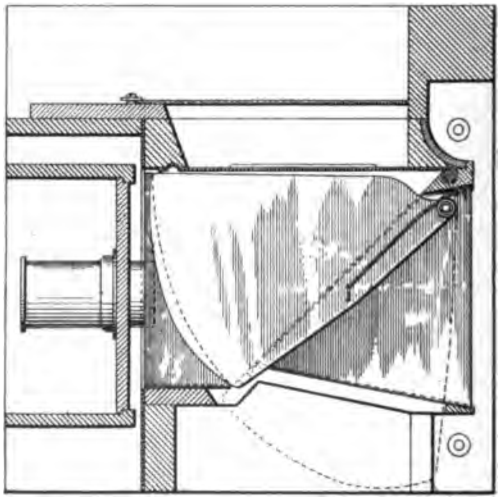
July 26, 1910.

965,389. CAMERA SHUTTER AND MEANS FOR OPERATING THE SAME. Lucious C. Knee, Philadelphia, Pa.



The shutter is of the open and shut kind, intended for studio cameras, and is noiseless in operation and quite simple in construction. Two hinged flap leaves, having a crank lever attached to one end of their axes connected respectively by links to the ends of a central pivoted rotating lever, are both opened outward when the lever is moved in one direction and closed when moved in the reverse direction. This operating lever is actuated by a pneumatic pump and the usual bulb and tube connection. Pressure on the bulb opens the shutter flaps or leaves and a spiral spring connecting the ends of the shutter axes opposite the actuating cranks quickly closes the shutter flaps when pressure on the bulb is released. Projecting outward at an angle from the base of the shutter are two stationary arms or guides lined with felt to limit the opening movement of the shutter flaps. The latter are also lined with felt or soft material which prevents them making noise during the operation of opening and closing.

965,516. CAMERA. Edward L. Hall, New York, N. Y.



The essential feature in this reflex camera is the attachment to the center of the underside of the horizontal focusing mirror of a triangular-shaped, thin, vertical septum plate, for use in a stereoscopic camera, (in connection with the usual curtain shutter just in front of the sensitive plate), making an opaque longitudinal partition between the two lenses. When the mirror is down for focusing, the operator sees the twin images on the horizontal ground glass; when the mirror is released and flies up to release the focal plane shutter, the triangular vertical septum underneath the mirror goes up with it and makes the separation of the twin chambers complete. The triangular dotted line shows the position of the septum when the mirror is down, for focusing. It appears to be a very simple arrangement, and utilizes the focal plane shutter to good advantage.

AMERICAN PHOTOGRAPHY

VOL. IV. OCTOBER, 1910 No. 10

THE EXHIBITION OF THE ROYAL PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN

H. SNOWDEN WARD, F. R. P. S.

(Editor of *Photograms of the Year*)

THIS year's exhibition, the fifty-fifth in unbroken succession, is rather a momentous one for the "parent" society. The magnificent series of halls in Regent Street, wherein its pictures have been displayed for many seasons, has been converted into a high-class restaurant, — for fine feeding is more profitable than fine art, and the Royal photographic Society, in common with the other exhibiting societies that had used The New Gallery, was forced to look for another home. Fortunately (for it is very difficult to obtain a good art gallery in London) the Linked Ring had decided not to hold a salon this year, so that the Pall Mall Gallery of the Royal Society of Painters in Water Colors became available, and the Royalists went back to those old premises into which they were followed by the Salon several years ago, when they left them for the more spacious halls of Regent Street. Unfortunately, it was not possible to secure the rooms on the old dates, and the society perforce contented itself with an exhibition in late August and early September, the deadest part of the London season, when every one who is anybody is away to the moors and the nobodies are down at the seaside. The smaller rooms made it necessary to abandon the Trade section and the Professional section, — two sources of material income, — with the result that the financial outlook is very uncertain.

Of course, we have no concern with the finances. The pictures, in their old-time surroundings, suggest retrospect and comparison, and at first sight one is struck with a sense of strange familiarity. The close framing, in heavy, dark moldings, without any mounts, is all gone, and we are back again in the realm of the broad white boards, — almost as it was in the years before the Royal moved away. On closer examination there are differences. We have no longer the Oxford line and the India tint that did so much to kill the pictures mounted upon them, and to reduce the general appearance of the room to an irritating uniformity. And, thank heaven! we no longer have the fancy moldings, and the gilt slips which conspired to overpower such prints as did not succumb to the mounts. At the same time, one cannot give unstinted praise — not by any means — to the mounting of to-day.

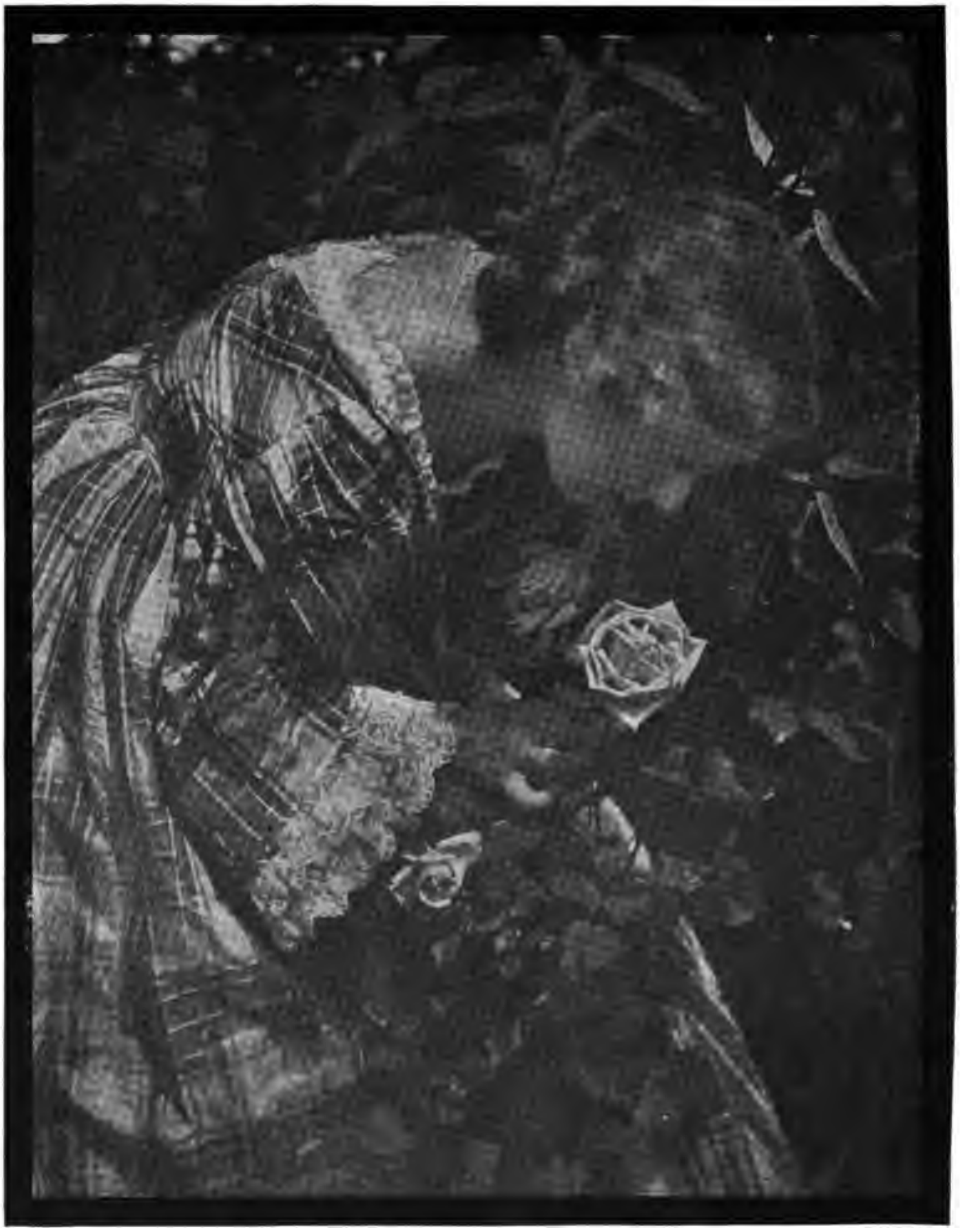
So much study has been given to the surrounding of the print, Holland Day demonstrated so ably, Evans has written and explained so fully, that we ought to have better results than are here apparent. Many of the surroundings are crude and harsh in their contrasts, overpowering the print when seen at close range, and forming strident irritating notes when seen from a distance. If this is the best our exhibitors can do, all the lessons must be given over again. Here and there we find the quiet grays or the carefully studied multiple setting, and there are many examples of neat, close framing, but there are too many hard, bald contrasts, and the principal group of them is arranged to face the entrance.

SUNSHINE FURLEY LEWIS, LONDON

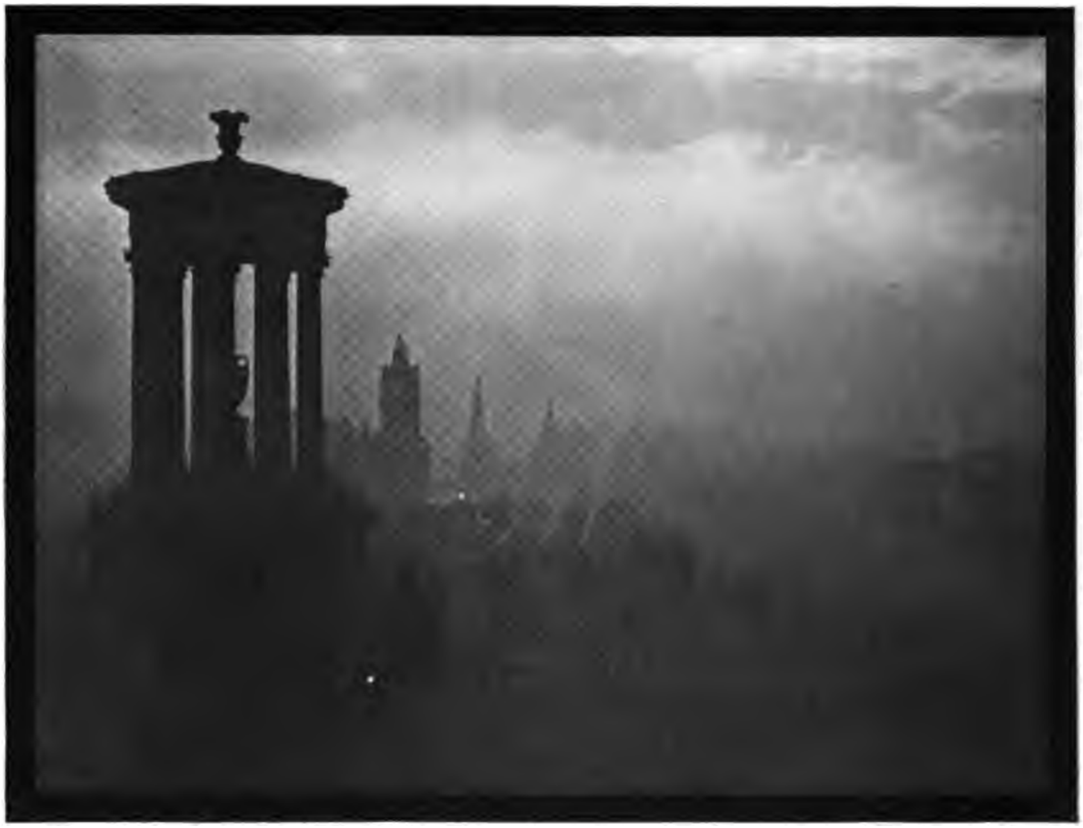
Royal Photographic Society of Great Britain Exhibition

In the old days, when landscapes had blank skies and often great patches of hard, almost white foreground, there was possibly some excuse for a white or light cream mount, to attempt to overpower the great white patches, and to give the spectator a chance of seeing the delicate passages of a middle distance, or the modeling of a cheek and neck in a portrait. But now, when most of the work is in a low key, there is no need to combat the little patch of light that finds a place here and there and that is, or should be, connected with the emphasis of the picture.

So much for a first impression. On a closer scrutiny one finds that the striking note of the year's work is a return to pure photography. Much of the half-educated "faking" that we received with too much wonder and too little criticism a few years ago is no longer good enough. The proportion of gums, oils, and bromoils is no longer increasing, for out of two hundred and eleven exhibits in the pictorial section fifty-six are oils, of sorts, and eleven are gum bichromates. Possibly the proportion will be larger in the London Salon show that opens a fortnight later than the Royal, but a wide survey of the year's work suggests that the experience at the Royal is typical of a general tendency. And what is most important, the oil and gum workers are showing very plainly, what Demachy has been teaching for some time, that for their own processes the only sound basis is the very finest technical mastery of negative making.



THE SOUL OF THE ROSE
MRS. G. A. BARTON, BIRMINGHAM
Royal Photographic Society of Great Britain Exhibition



EDINBURGH FROM CALTON HILL • PETER ORR, GLASGOW

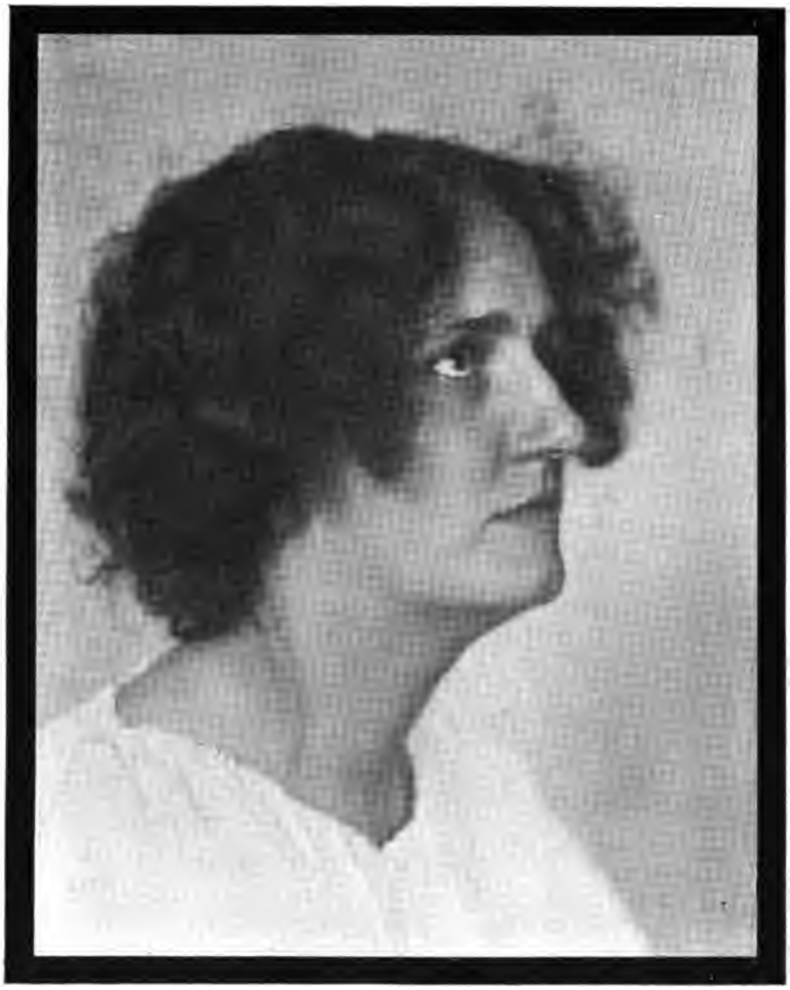
Royal Photographic Society of Great Britain Exhibition

Perhaps the one man who stands out most strongly this year is C. David Kay, whose five bromoils show excellent photographic quality.

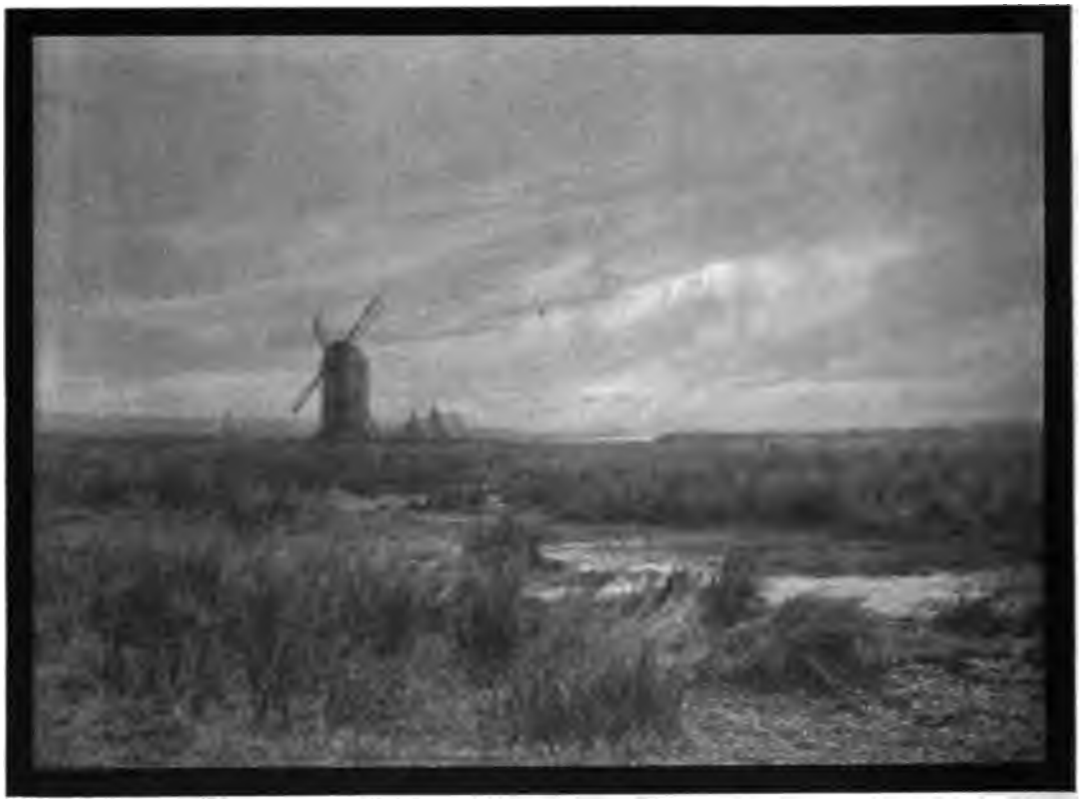
The exhibition gives, at first inspection, a little feeling of disappointment, but it improves on acquaintance, though it would never rouse great enthusiasm. Nothing of epoch-making quality is to be found, and little that suggests new lines of thought or new discoveries. Very little is absolutely inspired, and little is truly inspiring, yet there is a good comforting middle-class refinement and high quality, with a marked absence of the commonplace.

No unknown giant of power is revealed this year, no great new reputation is made; but a few people show unexpected strength and improve their positions greatly. The outstanding man is Kay, as mentioned above. He has long done sweet, comforting things: now he adds strength and assurance to the sweetness; and there is good promise of a real first-rank worker. His landscapes suggest the formal compositions of certain German workers, without their ruggedness; his treatment gives softly luminous prints, full of rich detail and subtle play of light and shade.

Robert M. Cocks and R. Lincoln Cocks, with five frames each, are amongst the most interesting of the newer men. Peter Orr, who has given good promise for some years, has never been so confident and consistent as he is in the present exhibition. One of his subjects is a portrait head, well and strongly handled; the other three — "Edinburgh Castle," "Edinburgh from Calton Hill" (see page 558) and "Kelvingrove, Evening," are all of one class, showing the application of new observation to some of the most hackneyed of professional beauty-spot subjects. In each case a strong decorative outline in a rich, low tone, is silhouetted against a background full of soft



THE DISCIPLE
GRETE BACK, DRESDEN-BLASEWITZ
Royal Photographic Society of Great Britain Exhibition



RAIN CLOUDS **JOHN M. WHITEHEAD, ALVA**

Royal Photographic Society of Great Britain Exhibition

gradations. All make the same general appeal, while each has its own special character, and each is a triumph over the difficulty of keeping almost ungradated flat tones in their proper planes.

Another Scotsman who well upholds the national honor this year is John M. Whitehead. In "The Mystic Hour" he has one of the best of his long series of studies of the edge of night; in "Rhododendrons" he has gone back to a field which he deserted some years ago, and shows that he has lost none of the old charm; while in "Rain Clouds" (page 560) and "Departing Glory" he has good examples of his newer, sunnier style of evening landscape. In such a study as "Rain Clouds" it is well to compare the quiet, reposeful sky, delicately handled, with the harder, more dramatic treatment that is too often thought necessary.

The foreign element is not very strong. Miss Grete Back, of Dresden, fulfils her promise of a year or two past, with "The Bowl" and "Disciple" (page 559), two well-modeled profile studies against light backgrounds, and "The Poet," an unusually fine study of a strong, nervous face and a hand that almost speaks. Dr. E. G. Boon has three of his delicate figure studies with white backgrounds; Hugo Erfurth has three portrait studies; Miss Anny Heimann has one; and two or three other continental workers are represented.

In a hurried glance around the room one may note Mrs. Barton with two of her intimate glimpses of young life and nature. The girl with the roses (page 557) and the boy with the young jay breathe the spirit of old Pan, the joy of life and sun and air. A. H. Blake, M.A., continues his studies of London, with a sternly impressive "Lambeth Bridge," and "The Temple Fountain" (page 574), in a version that well recalls Charles Dickens's description in Martin Chuzzlewit: "Brilliantly the

REVERIE A. KEITH DANNATT, HASLEMERE

Royal Photographic Society of Great Britain Exhibition

Temple fountain sparkled in the sun, and laughingly its liquid music played, and merrily the idle drops of water danced and danced as little Ruth and her companion came towards it." We have no more loving or competent student of London; no more wonderful revealer of its overlooked charms, than A. H. Blake.

A. Keith Dannatt has been touched by the German influence, and his "Reverie" (page 561) quite belongs to the modern Dresden school. Frank Birch of Derby, one of the best of our new portraitists, is well represented; and C. Willé, a friend and pupil of E. O. Hoppé, is very distinctly strong.

Two very interesting groups, on lines worth further study and emulation, are "The Lesson in Bromoil" by John Moffat and "An Argument" by Miss Brenda Johnston. Another, on quite similar lines, which is not shown at the Royal, is "The Financial Statement" by Walter Pickering. Though it is not feasible to include reproductions of these in the present notes, they are being reproduced in other publications which will probably be seen by most of our readers. They well combine the interest of the purely genre group with that of a series of portraits.

Miss Lena Connell, an advanced professional portraitist, has two very good portrait studies, and Miss Kate Smith — faithful to her dainty nudes in dainty landscape settings — has just one "Sweet Dryad Maid."

Mr. and Mrs. Bracewell are more ambitious than they have been hitherto; and Oscar Hardee, with two landscapes and one strong Bohemian portrait study, takes a long stride ahead of his former position. Mrs. Ambrose Ralli is at her best, especially in "Careworn," where she has set the seated figure and strong, thin profile against a background of fine, rich quality.

Harold House strikes a new note, with delicate, light-toned sunshine-and-shadow work; Ernest Marriage has a haunting, fairy-like effect in "The Large Low Moon"; and Alexander Keighley, in an exterior and an interior with figures, shows all his old power.

E. O. Hoppé, F. J. Mortimer, the afore-mentioned Alexander Keighley, Archibald Cochrane, and a few others, are probably saving their best efforts for the exhibition of The London Salon Club, about which I hope to say something anon, — when comment upon, and examples of their work shall be included. Meanwhile, Mortimer must have just a line for his "Britannia's Realm," and "The Flowing Tide" (page 577), which is quite one of his best studies of sea and sky.

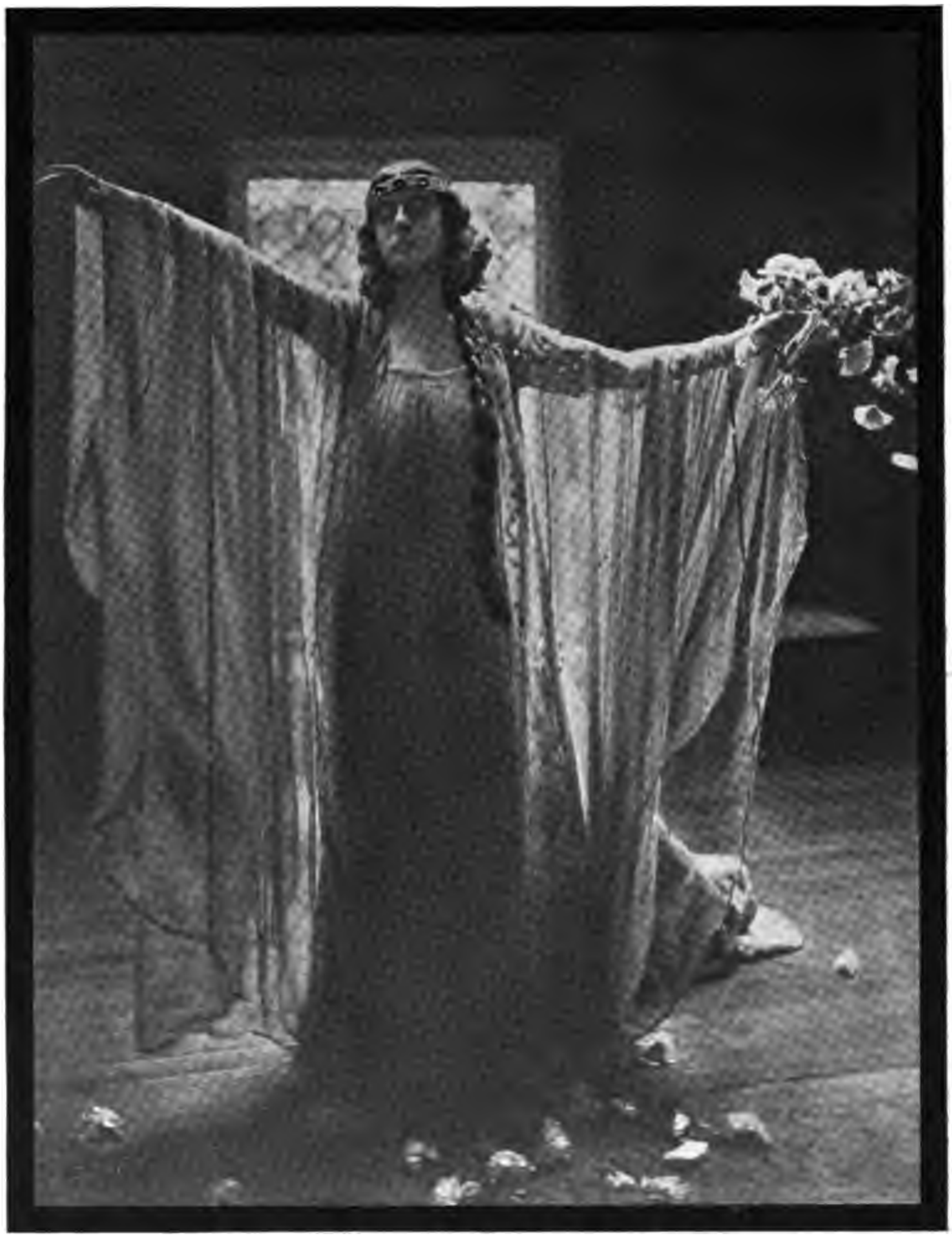
C. H. Hewitt's "In the South Triforium, Gloucester," is one of the best oil prints, in a year when they are strong in quality though not in numbers. Furley Lewis has only two items, — a happy, sunny grouping of his own two children, made on the morning of the sending-in day (page 556) and a bright, rather rakish-looking portrait of Lord Redesdale, the president of the Royal Photographic Society (page 573). John H. Gear displays his mastery of the oil-pigment process, but I am not sure that his essay in multi-color has resulted satisfactorily.

William Crooke gives us a surprise in his "Sleeping Beauty" (page 563). Deprived of the fine wall on which he has given a dignified, impressive one-man show for years past, and driven back into the "ruck," it was a speculation as to how even his fine portraiture would tell. Rising to the occasion excellently, he has departed from his old lines and produced a delightful study, — a pleasantly suggestive variation on an old poetic theme. Close to it hangs an attractive trifle "The Tuck Shop, Night," in which Harold Moore has made good use of a dark pigment on light yellow-orange, to suggest the gaslight streaming from the window, and down the stone steps from the open doorway of a little old-world village candy-store.

Will Cadby has two of his delightful child studies, also a pleasing trifle of observation in "The Snow Fighter," — a rotary snow-plough on the railroad, with delicate play of light and shade upon the banked snow. George Porter-Higgins more than fulfils his promise of the last three years, with three portraits of excellent quality; E. T. Holding gets breeze and motion into his open-air figure studies; and if a score of others are not mentioned, it is only because of want of space.

America is but thinly represented, and we miss our Canadian friends altogether. Mrs. Jeanne E. Bennett, of Baltimore, has four examples of her well-known work in rich dark tones and soft gradations, and Miss Alice Boughton (New York) has one strong portrait, a head of Maxim Gorky. C. F. Clarke (Springfield, Mass.) has a landscape and a happy child study. Dwight A. Davis (Worcester, Mass.) has no less than five landscape and figure pieces, and Adam Kraft, of Wilkes-Barre has two, in his happiest style. W. D. Murphy, who dates from London (England) as well as from New York, has one example, which completes the tale of the American contributions.

This small response from the United States, and the noticeable absence of many, many people whose works would have been most welcome, is matched, to a large extent, by similar indifference on the British side. Some of our workers are abstaining from exhibiting altogether. Some say that they have done nothing worthy of exhibition. The authorities responsible for the shows go to a very great amount of expense and trouble, and it really does seem as if they ought to find more whole-hearted response. Photography very seldom shows the work of which it is really capable, and it can only do so when a competent selecting committee is allowed to choose from the best work by all the best workers. Exhibitions which are merely pleasing, or good, which can be dismissed as a whole with faint-praise adjectives, are not calculated to place photography in the best possible light before the world, and in the interest of the status of our art-science, one would like to see a far stronger support of the exhibitions by the advanced workers.



THE SLEEPING BEAUTY
WM. CROOKE, EDINBURGH
Royal Photographic Society of Great Britain Exhibition

SHAPE IN FIGURE COMPOSITION

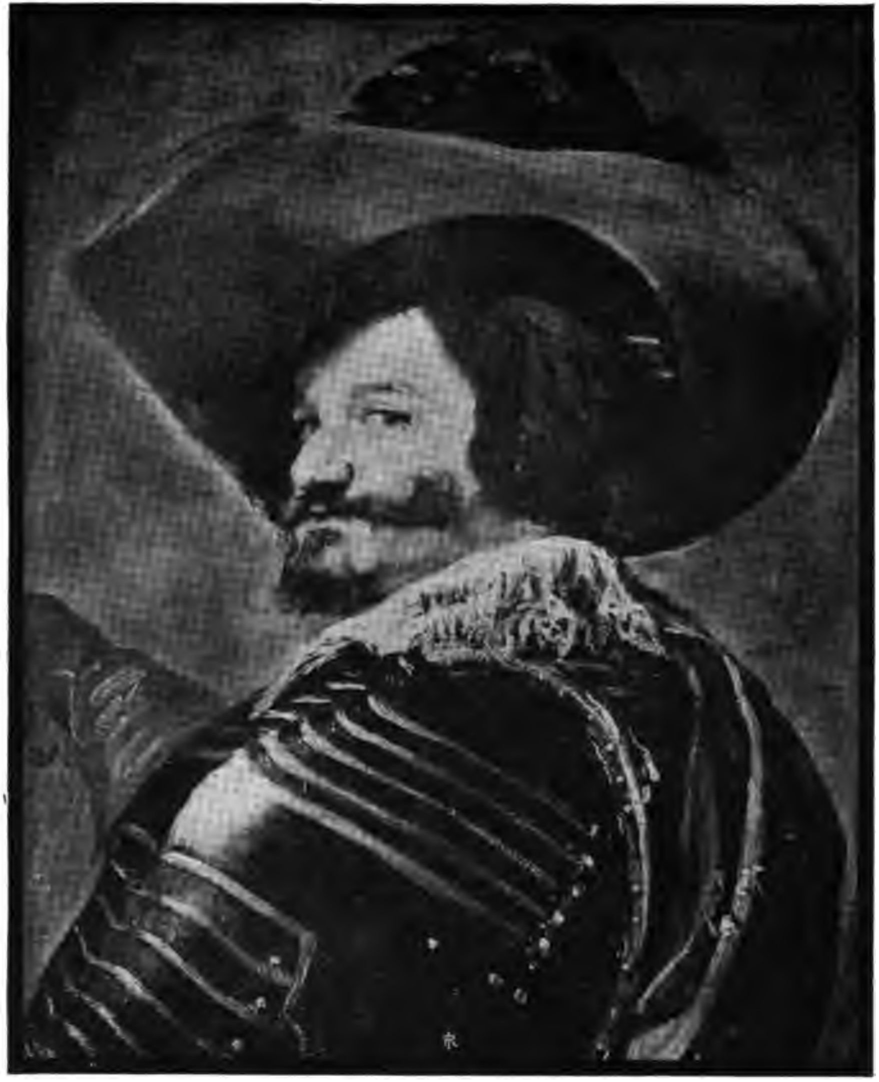
ELISA ANNE SARGENT

SOME years since Lewis Carroll set forth in rhyme the ambitions of a family to appear well in photographic portraits. His illustrator was an able second in presenting the versifier's ideas as grotesques of the most commonplace sort. The impression made by the flight of the man with the camera — gone completely mad — is lasting. No reformer, educator, or "apostle of the beautiful" ever had a greater field for stupendous and untiring effort than the knight of the flattering lens. And how well he has wrought out the problem of portraiture for the great numbers is being shown from day to day in publications and in the homes of high and low throughout the world. Best of all, he has convinced the public that "that is best which lieth nearest" — or, in other words, that the straightforward, unaffected presentment of the sitter is the greater end to be attained. This, with a grain of seasoning in the way of picturesque posing and fuller attention to composition, brings the photo-portrait into the realm of genuine art as legitimate picture-making of a high order.

The painter cannot offer the photographer more than could be given back to him, for as to selection, lighting, posing, and modeling, the latter has a great fund of knowledge which the former often lacks. But the painter has certain traditions of art which the knowledge of drawing and painting alone can give, and for which the photographic portraitist may well seek. It is the purpose of this article to bring out some of the fundamentals in composition by the study of shape in a number of selections from the masters in painting and thereby to give suggestions as to what the study of paintings may yield the photographer as a return. There is no intention of being exhaustive in this attempt, nor of following chronological order. Rather, the different forms of portraits and figure drawings are studied as to the choice of materials to produce agreeable dark and light shapes within a space.

The Duke of Olivarez in chevalier's costume (Fig. 1) must have been a magnificent subject for any artist, and Velasquez was a painter equal to the representation of his rich color and gorgeous dress. More than this, he knew how to define his light shape by using face, lace, bright armor, and detail as a gracious movement across and down the space. This is strong, bold, and yet choice drawing. The dark shape is equally well drawn — large, rich, and with excellent contours. Best of all, it moves well with the light shape — defining it clearly.

There are named below several other portraits of head and bust that present an equally good shape arrangement, and are very well worth looking up. Jean Clouet's Francis I is an example of the real French Renaissance. It is as handsome in its way as the ornament of the old chateaux



THE DUKE OF OLIVAREZ — VELASQUEZ (FIG. 1)
THE PRADO, MADRID

of France — before the importation of Italian ideas. Titian's daughter, Lavinia, holding aloft a plate of fruit, is another splendid example of a portrait shape; and, coming nearer to our own times, Romney's Mrs. Robinson and Miss Ramus are beautiful compositions of shapes in a space.

Figure 2 shows Hals in a serious mood. It is also a type of portrait with which modern workers have to deal — the three light spots with no obvious connecting link to help out the shape. The ruff and cuffs in the Nicolas van Beresteyn are more encouraging, however, than modern masculine attachments of the same sort. Titian-like, Hals has forced up his details of ornament on sleeve and girdle, and added a scutcheon with his signature to bring out the "line of beauty" in his light shape. He has even forced up the lighting of the hat to complete the line. The greater skill, perhaps, is shown in reducing the somewhat awkward dark mass of the figure to a subordinate place in the composition — so subordinate you forget it. There is a "Laughing Cavalier" of Hals's in the Wallace Collection (London), in which abundant lace and an abandonment of gayety add greatly to the brilliance of effect; but the composition is no more seriously worked out.

Titian's "Man with Glove" and "La Bella" present this same problem of drawing three isolated spots together as well as the problem of dealing with so much of the figure. Van Dyck's "Portrait of a Flemish Lady" and Henrietta Maria (at Windsor) are of the same order. One of the most glorious figures of this kind is Romney's "Miss Benedetta Ramus" (Wallace Collection, London). The background is beautifully spaced to set off the lovely, gracious form. The figure is admirably posed — that is, naturally and yet so as to make a most pleasing contour.

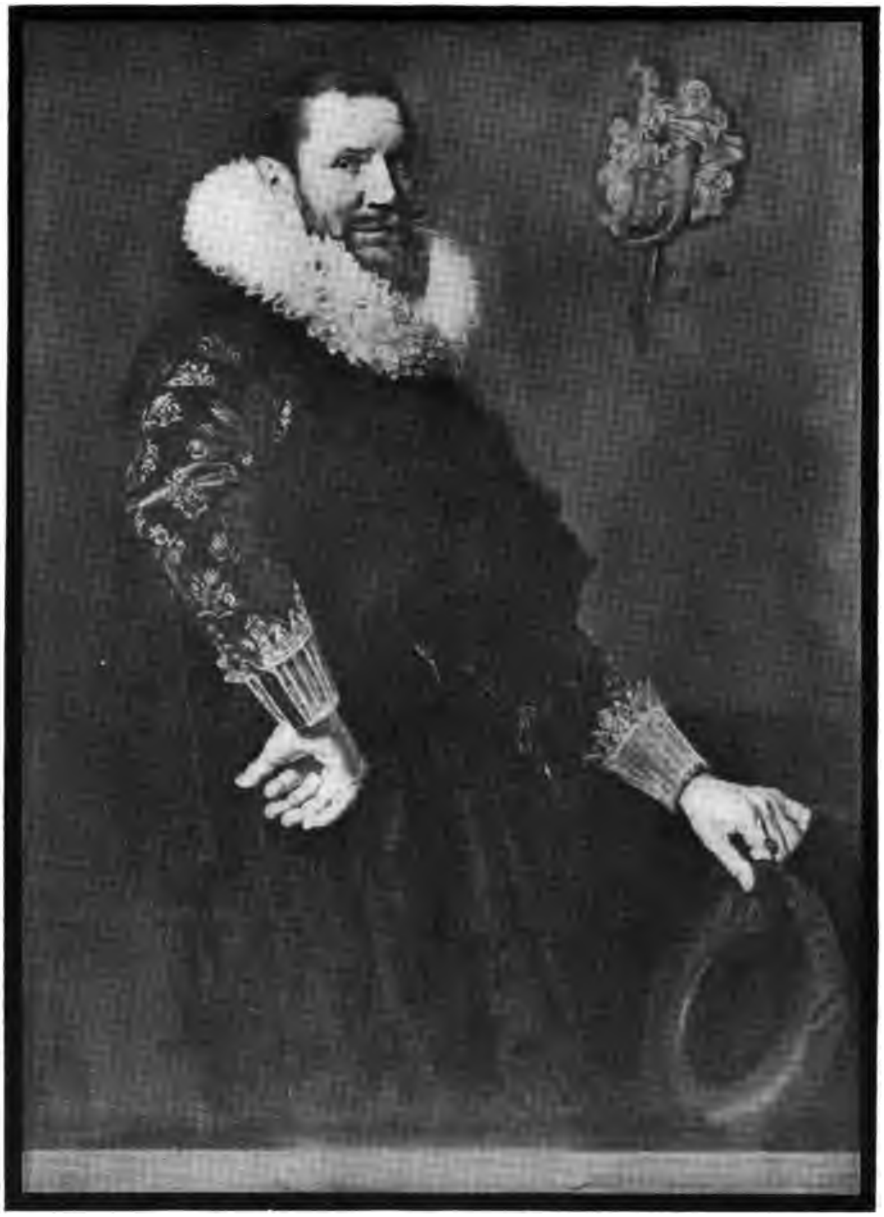
To Sir Joshua Reynolds we may ever look for unique, sentimental, and picturesque attitudes. Most of his portraits are *compositions* and are inclined to be "subjects." The "Robinetta" (Fig. 3) is a good type of graceful attitude according to place and time. This painting is chosen because of the location and movement of the light mass, and because it is a little extravagant, thus driving home the idea of making a good shape of the sitter. It illustrates also the English taste for throwing light into the center of the space. Reynolds's "Duchess of Devonshire and Child" (Windsor) is a familiar and very delightful composition, showing practically the same points. His "Mrs. Hoare and Child" is a remarkably unaffected portrait of not unlike shape and line characteristics. This last is in the Wallace Collection, London. Similar study may well be made of Sir Thomas Lawrence's "Lady Blessington"—a gracious light shape well placed in its enclosure. Rossetti's "Lady Lilith" is a wonderfully beautiful arrangement of lines and masses cutting a nearly square space admirably. The many sinuous movements of hair and drapery, together with the contours of the limbs and bust, are wrought into an exquisite whole, — a somewhat decorative shape, with rose-vines and roses helping it farther into the field of pure design. Gainsborough's "Mrs. Siddons" fits admirably into this group, — a splendid composition.

Illustrations 4 and 5 lead us into the realm of figure painting, though Velasquez's "Ferdinand of Austria" is a portrait-type, pure and simple. In order to point out lines of observation in this field it is well, perhaps, to arrange the matter given with regard to such attitudes of full-length figures as present fine shapes for portraiture or other kinds of art in which the human form is the dominant feature. We therefore refer to the standing, the sitting, and the reclining figure in the succeeding paragraphs.

Velasquez never fails to secure his light and dark shapes. In this standing portrait (Fig. 4) he carries the light of the face over the brocaded sleeve to the glove and on to the light form of the dog which completes the movement. The dark shape is supported and drawn into the background by means of the tree and the shadow. He has accomplished much with a not over-picturesque subject, and by this relation of the tall form with the background, has avoided the unpleasant "standing-out" effect so common in this kind of portrait. While the picture is not a brilliant example of the painter's art, it is a remarkably good composition, — better than many from his brush. There are several similar portraits by Reynolds following this mode of composition. His "Captain Orme" is not nobler but more splendid than this Velasquez. The light shape in the "Captain Orme" is capitally carried through the space, using even the white foot of the horse for its completion. Gainsborough's "Hon. Mrs. Graham" and his "Mrs. Means" are well worth study as pleasing shapes in standing portraits, which are enhanced by good background settings.

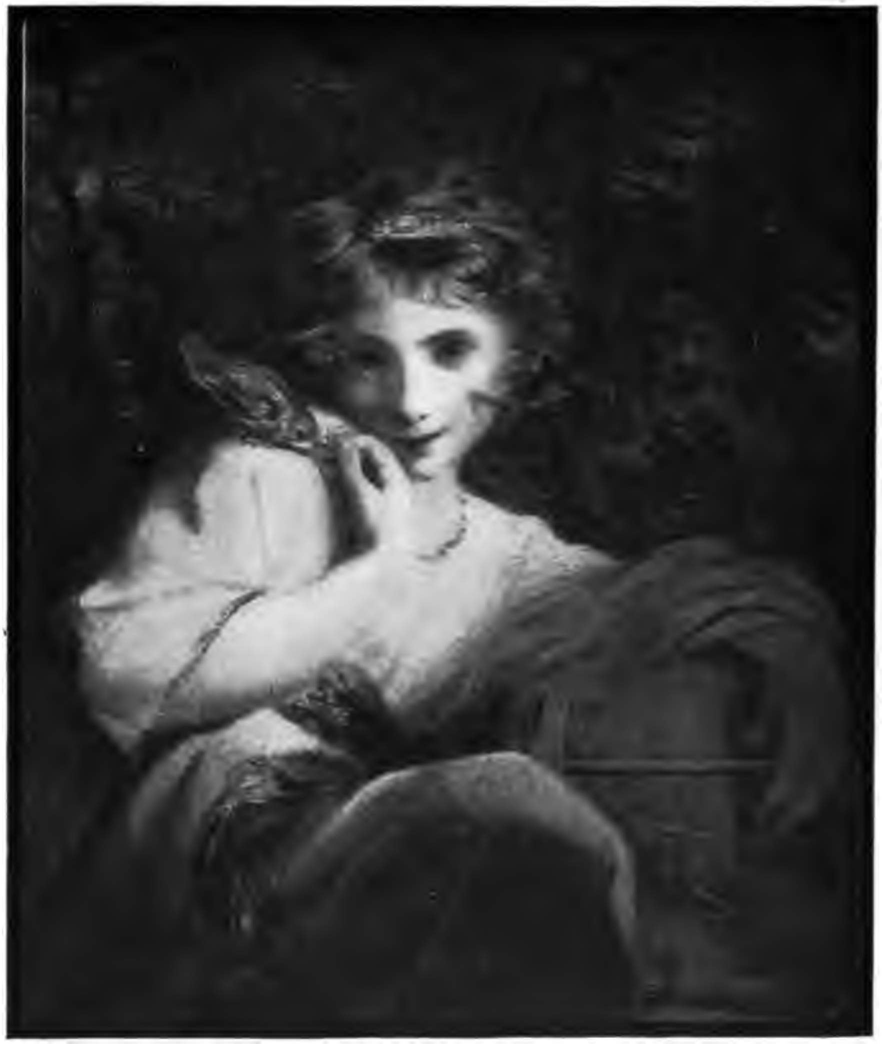
Van Dyck is so generally well known as a painter of full-length portraits through his very numerous delineations of Charles I, Henrietta Maria, and their children that it is worth while only to note that he set the example for those among English artists who followed him. Sir Joshua Reynolds, Gainsborough, and many more hold their laurels when compared with him, though, undoubtedly, his elegant and gracious "Charles I" makes us weep for him as a martyr more than the real man would do.

Among modern painters Whistler and Sargent have had the courage to perpetrate full-length



NICOLAS VAN BERESTEYN — FRANZ HALS (FIG. 2)
LOUVRE, PARIS

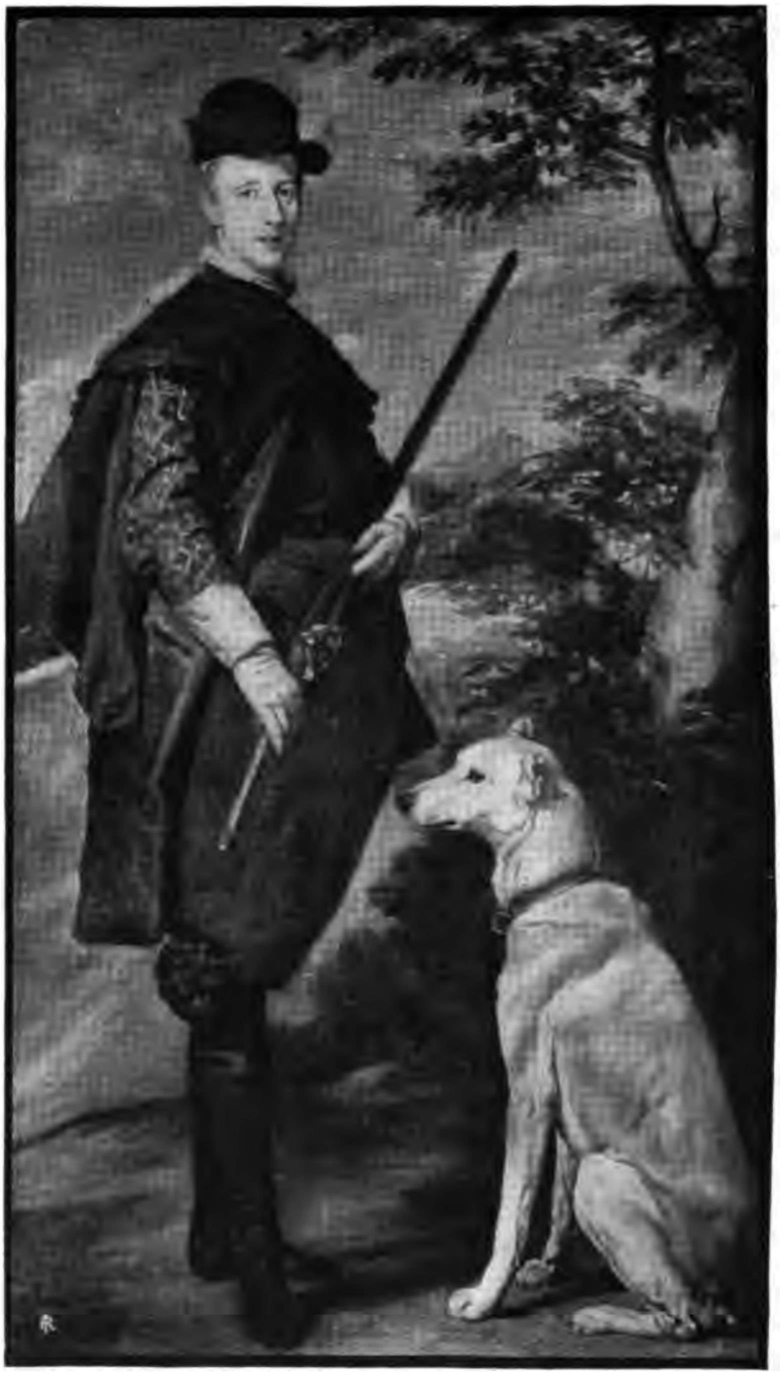
portraits in an age when there is not so great interest in the subject. Whistler was a subtly clever composer — as shown in his arrangement of a lady's wrap on the arm of "Count Robert," to secure the carrying downward of the light shape without accessories in the room. In his portraits of women he affected Japanese lines, and so dealt wisely with costumes not very picturesque in themselves. Whenever the gown is trailing, he has great success. Sargent, in spite of his greatness as a draughtsman, has often become mediocre in full-length portraits. In his "Mother and



A type of feminine portrait, very popular in England and France in the eighteenth century, in which sentiment is ever near the dangerous ground of sentimentality.

ROBINETTA—SIR JOSHUA REYNOLDS
NATIONAL GALLERY, LONDON

(FIG. 3)



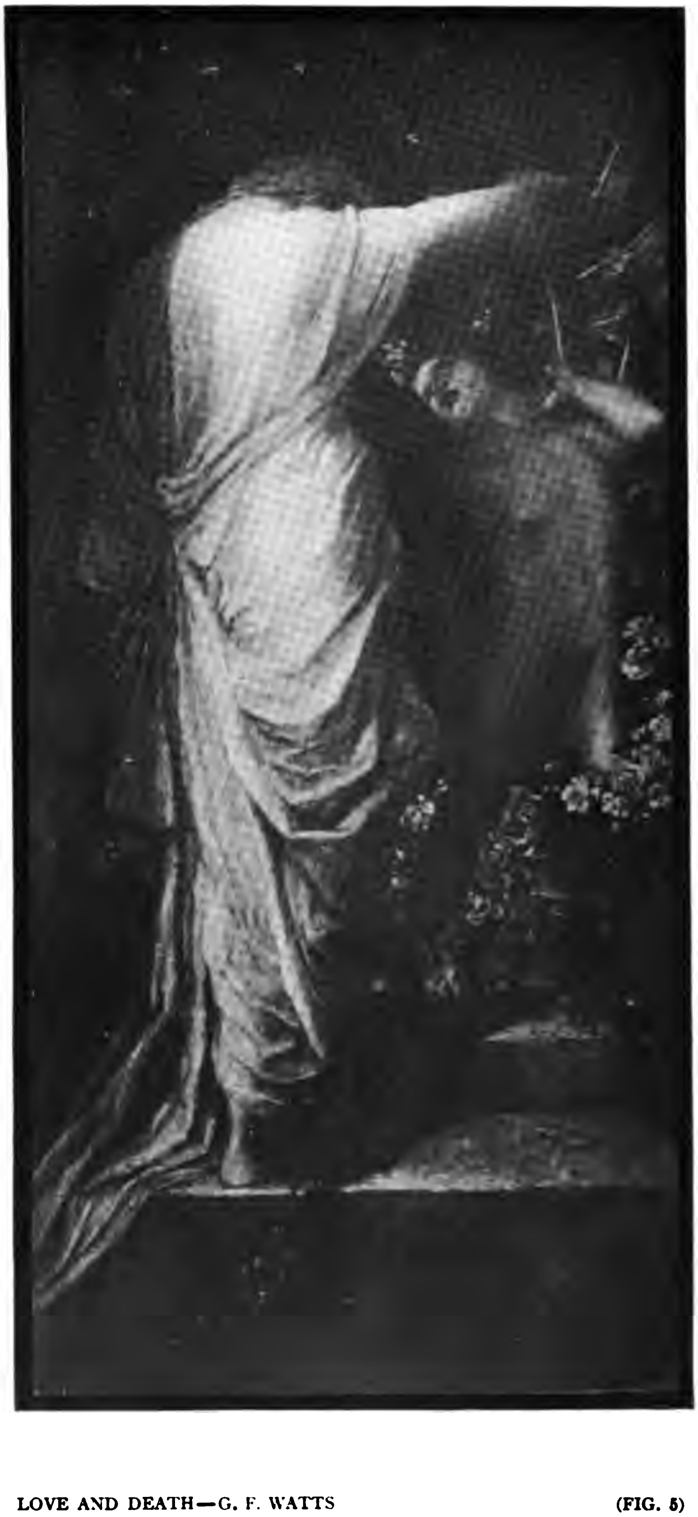
FERDINAND OF AUSTRIA—VELASQUEZ (FIG. 4)
THE PRADO, MADRID

Son," however, he has given a seriously faithful delineation of the beautiful boy, from top to toe. This is not one of his brilliant efforts, but is considered one of his masterpieces in drawing, and is good composition.

There are some seated and some reclining full-length figures which are such noteworthy and even exquisite shapes it seems of interest to mention them. Gainsborough's "Mrs. Robinson" (Perdita) in the Wallace Collection, and Prud'hon's "Josephine" are beautiful figures. David's "Mme. Récamier" is also a notable figure — over the danger-line of the purely artistic, but worth studying for its peculiar grace. Ingres's "Odalisque" is a marvel in composition and drawing. If Leonardo spent three or more years drawing "Mona Lisa" — walking across the city to add some single touch to bring it nearer perfection — Ingres might have spent ten years in working out each curve or spreading the carefully graded tints to model the exquisite form of the "Odalisque." There is a Newnes' Library monograph on Ingres in which this painting is reproduced.

"Love and Death" (Fig. 5) takes us out of the portrait world and introduces what some might call "decorative" features. It is chosen as a beautiful light shape moving rhythmically across an oblong space, — and because it is a very exquisite thing. What sadly resolute lines delineate the invading form! How immovable the arm, the body, the firmly and heavily planted foot! The lithe lines of the opposing form are powerless to resist this sadly approaching force, anxiously active though they be. Slow moving but never-staying, the end is certain — inevitable! Here is the excelling power of the artist's hand following his spiritual conception — a thing which the photographer, however well equipped, cannot attain. The inventions of the painter's mind, carried out by means of the traditions of art, cannot be equaled by feats of the camera.

In closing, it may be of value to the reader to see a list of books in which the above and kindred paintings are shown in reproductions. Since 1900 many useful handbooks of galleries have been brought out. To one of these in particular — "The Art Treasures of London" — we are indebted. "The Art of the Prado," "The Art of the Berlin Gallery," and others of this class are excellent references. Several series of monographs on painters have also come out in very recent years. The Newnes' Art Library, the "Makers of British Art" series, "The Great Masters in Sculpture and Painting" (G. C. Williamson), "Masters in Art" (Bates and Guild), "Masterpieces in Color" (T. Leman Hare), and "The Artists' Library" (Lionel Cust) have been consulted in preparing this article. "The English Pre-Raphaelite Painters" (Percy H. Bate), "A Handbook of Modern French Painting" (D. Cady Eaton), "Gainsborough and His Place in English Art" (Sir Walter Armstrong), "Whistler" (Elizabeth Luther Carey), and several more works of the same order are well illustrated and contain portraits suggested but not illustrated in the preceding pages. "Days with Velasquez" (C. Lewis Hind) and "Reminiscences of G. F. Watts" (Mrs. Russell Harrington) may well be added to the above list. "Pictures in the Wallace Collection" (Frederic Miller) is not only well illustrated but opens up a collection of paintings less familiar than those of the older galleries.



LOVE AND DEATH—G. F. WATTS (FIG. 5)
LONDON

THE MOTION PICTURE

STANLEY CURTIS

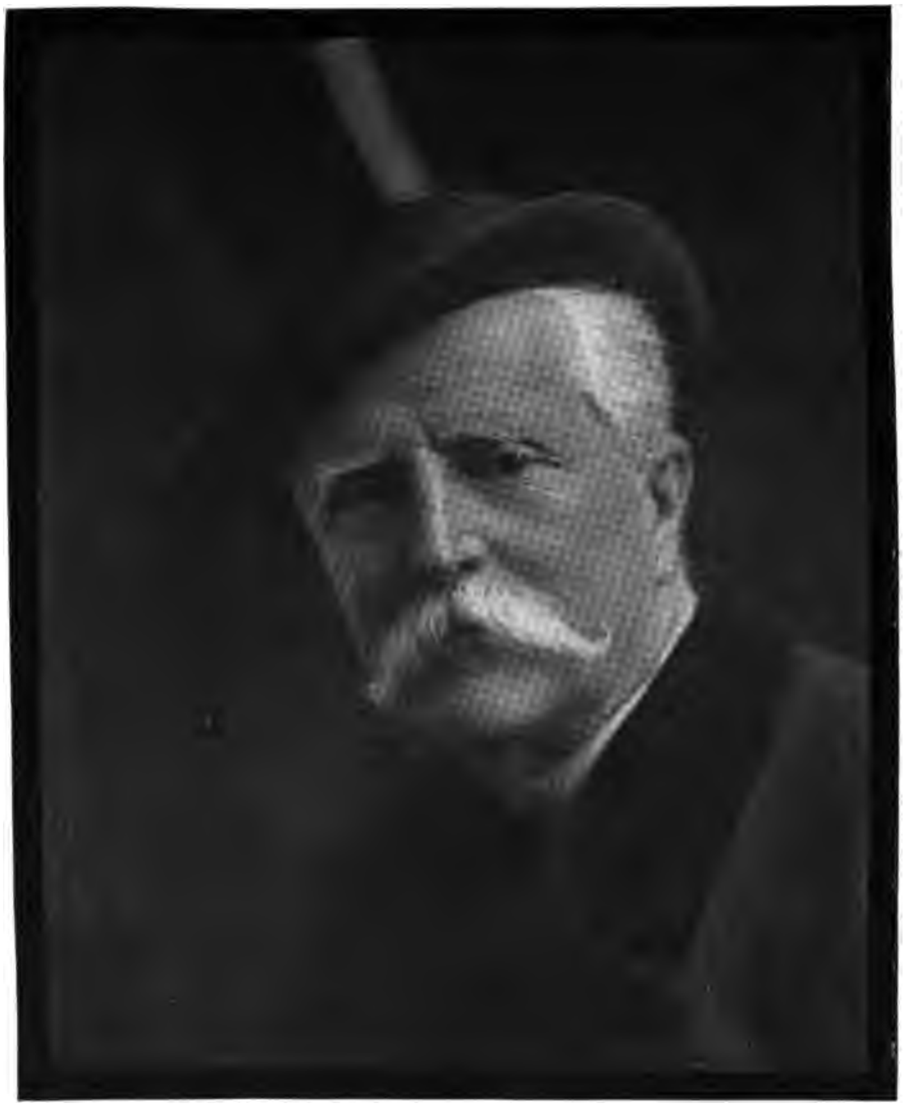
CHAPTER IV — THE USE OF ELECTRICITY IN PROJECTION WORK

THE electric arc light has superseded almost every other form of illuminant for projection purposes in general; for motion picture work it is practically the only source of light which can be used to obtain satisfactory results. Aside from its great power, the electric arc has many other features which highly recommend it, namely, its wonderful purity of color, ease of handling, comparatively low operating cost, and last but not least, its absolute freedom from danger, as compared with other illuminants. The fact that this light is the only source of illumination permitted to be used in moving picture machines by the authorities in several States is probably one of the greatest testimonials as to its safety. Where the wiring is properly done, as it must be in order to pass inspection, fires or other accidents directly traceable to electric light are almost unknown, and so far as danger to the operator from electric shock is concerned, there is little to fear. There are but few cases on record where people have been injured by coming in contact with wires having a potential difference of less than 220 volts, and the voltage in general use in most places, 110 volts, is barely perceptible to the touch, unless the hands are moist. Of course it is not advisable to deliberately place the hands across the blades of a switch for more reasons than one. For instance, there is always a possible chance that the service wires, before entering the building, may come in contact with other wires carrying a high voltage, or in the case of an alternating current system, the transformer insulation might break down at the critical moment and send the line voltage, perhaps 2000 or more, through the house mains. These examples are decidedly rare and are cited simply to show that it is foolhardiness to take "shocks" for amusement from the lighting circuit. The wiring and apparatus connected to the circuit are protected by fuses which would melt in the event of a rise in voltage, causing an abnormal amount of current to flow.

When using a voltage higher than 220, the operator should use the utmost caution in handling his switch and lamp, and he should certainly be well insulated from the ground while operating. The potential used on most trolley lines, 550 volts, is nearly always fatal, providing the current passes through the heart, as it would if the operator touched the positive pole of the switch with his hand while standing on the damp ground.

One of the principal secrets of successful projection work is the ability, on the part of the operator, to obtain and hold a steady and brilliant light, as every little flicker of the arc is magnified many times on the screen. In order to acquire this ability, he should fully understand the "why and wherefore" of his illuminant, and if he studies it carefully, the arc will become as obedient to the touch of his hand as the pencil or brush is in the hand of the artist. To some it may appear that the writer is over-estimating the importance of skilful manipulation of the light in a projecting machine, but the experienced operator will agree with him when he says the battle is more than half won when the operator conquers the arc lamp.

Before we take up its application to the projecting machine, let us consider the elementary principles of the electric arc. Let us connect the poles of an electric circuit to a pair of electrodes, preferably of carbon; after touching the tips of the electrodes together for a second to complete the circuit, if we separate them a fraction of an inch, the current continues to flow across the gap in the form of an intensely brilliant arc or flame. The positive carbon is heated to dazzling whiteness at the tip by the passage of the current. The negative pole is also heated, but not to so great an extent. It is the great intensity of the light which emanates from the tip or "crater" of the carbon that renders the arc suitable to our purpose.



LORD REDESDALE, PRESIDENT ROYAL PHOTOGRAPHIC SOCIETY
FURLEY LEWIS, LONDON
Royal Photographic Society of Great Britain Exhibition

THE TEMPLE FOUNTAIN A. H. BLAKE, LONDON

Royal Photographic Society of Great Britain Exhibition

For the benefit of the lay reader, the electrical terms "ampere," "volt," "ohm," and "watt" will be defined. The strength of an electric current is the rate at which it flows through a conductor and is analogous to the rate of flow of water through a pipe in gallons per second. The unit of current is called the *ampere*. Electromotive force or electric pressure is that which causes electricity to flow in a closed circuit. The unit of electromotive force is the *volt*. The volt is the pressure that will cause a current of 1 ampere to flow through a resistance of 1 ohm. All substances offer resistance to the passage of electricity through them, the amount of the resistance depending on the substance and on its shape; that is, on the length and cross-section. The resistance of all metals increases with an increase in temperature, while the resistance of carbon decreases with an increase in its temperature. The unit of resistance is the *ohm*. A conductor has a resistance of 1 ohm when the pressure required to send 1 ampere through it is 1 volt. The *watt* is the unit of electric energy or power. It is the rate at which work is expended when 1 ampere flows through a resistance of 1 ohm. One horse-power equals 746 watts.

The currents employed on lighting and power circuits may be one of two kinds, — direct or alternating. A direct or continuous current is one that always flows in one direction; that is, the current never reverses, though it may change in value or pulsate. An alternating current periodically reverses its direction of flow a number of times per second. It may be described as

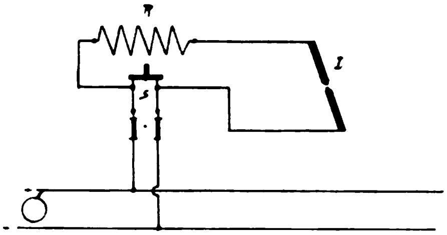


FIG. 1

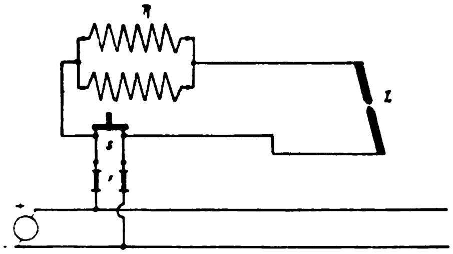


FIG 2

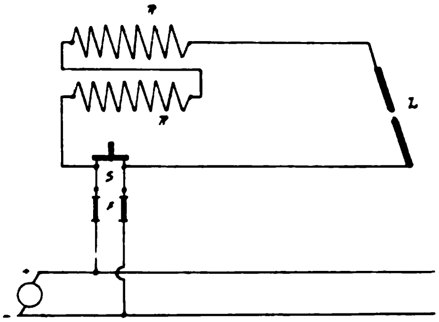


FIG. 3

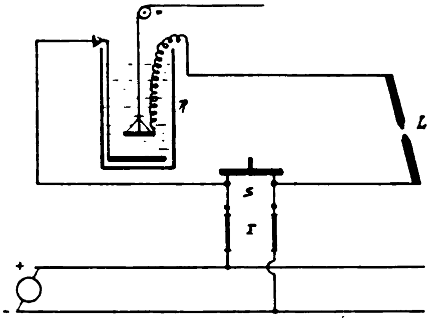


FIG. 4

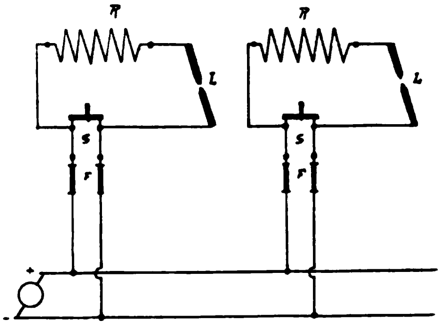


FIG. 5

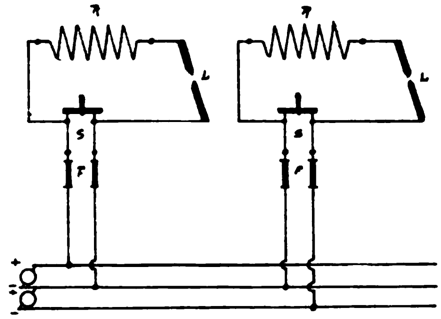


FIG. 6

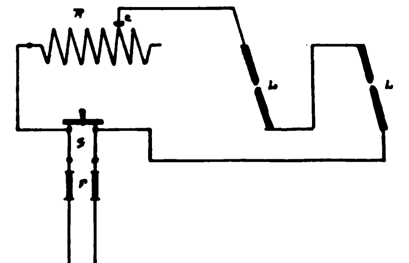


FIG. 7

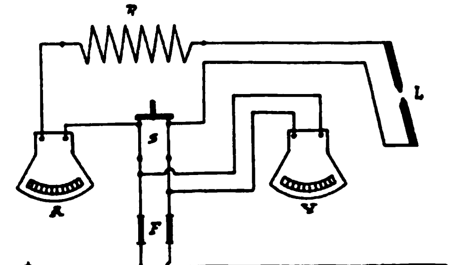


FIG. 8

PLATE 1 -

STANLEY CURTIS '10.

a current consisting of equal half waves in successively opposite directions; it flows back and forth in a circuit with as great regularity as the piston moves to and fro in the cylinder of a steam engine, but with far greater rapidity. The full period of alternation of such a current is called a *cycle* and the number of cycles per second constitutes the *frequency* of the current.

The light produced by a direct current is absolutely steady and noiseless, providing the carbons are properly placed in the lamp and are regularly fed together as they burn away. The top or positive carbon burns away twice as fast as the lower or negative carbon. An alternating current arc is very noisy and considerable difficulty will be experienced with its use. With this current each carbon is alternately positive and negative, and both burn away at the same rate. The arc in a motion picture machine usually uses from 30 to 60 amperes on alternating current and from 20 to 40 amperes on direct current. The voltage required to force this amount of current through the resistance of the arc is from 40 to 60 volts. Now the average lighting circuit has a voltage of 110 or 220 volts, and we must have a resistance of some sort connected in series with the arc in order to compensate for this surplus voltage. For this purpose we use a "rheostat," consisting of a number of coils of wire having a high resistance, in the circuit. This resistance consumes the extra voltage.

Let us glance at Plate 1, which shows the various methods of connecting up a projecting lamp to the lighting circuit. In Fig. 1 we have a simple circuit consisting of fuses, arc switch, rheostat, connecting wire, and the arc lamp. The writer favors connecting the rheostat to the top or positive carbon in preference to the lower one, although there seems to be very little difference so far as results are concerned. The connections shown in Plate 1 may be used on either direct or alternating current circuits.

Where the picture has to be thrown a long distance and the screen is a large one, the connection shown in Fig. 2 will give good results. This shows two rheostats connected in multiple and the current is almost doubled by this method, as the resistance is cut down one half. This form of connection requires heavier fuses and service wires to carry the extra current without undue heating.

Where the operator runs across a 220-volt circuit and he has no rheostat adapted to that voltage, he may connect two so-called "110-volt" rheostats in series in the emergency. They are apt to heat up considerably, as the resistance will hardly be great enough. Figure 3, in Plate 1, clearly shows this connection.

Figure 4 illustrates the method of connecting up a "water rheostat" for use on circuits of 550 volts or less. Two pieces of iron are suspended, as shown in a water-tight barrel. Insulated wires are connected to each of the iron plates and lead outside the barrel. The upper plate is made adjustable in height, so that the space between the plates may be increased or decreased at will. The barrel is filled with water after connections are made and the light started. A small quantity of common table salt should then be sprinkled in the water until the resistance is lowered sufficiently to allow about 15 or 20 amperes to pass through the circuit. The light may then be increased by lowering the upper plate a trifle. The writer has obtained excellent results by using a very small quantity of sulphuric acid in the water in place of the salt. The acid should always be poured into the water; never pour water on to the acid or an explosion is almost sure to occur. The use of a water rheostat is prohibited in many places and it should only be used in an emergency or merely as a temporary resistance in lieu of a regular rheostat. In another chapter the writer will give directions for building a rheostat for use on 550-volt circuits.

Figure 5 shows one method of connecting two arc lamps in multiple, each one being turned on and off independently of the other. This will be found useful in the case of a dissolving stereopticon or for two or more projecting machines. Figure 6 shows how to connect up on the three-wire system, and a word here on the advantages of this system of wiring might be appropriate. Let us assume that two direct current dynamos are generating the same voltage and each one is feeding the same number of lamps. If we connect the two generators in series, that is, the positive lead of one to the

THE FLOWING TIDE F. J. MORTIMER, LONDON

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negative lead of the other, it is obvious that we may disconnect the two neutral wires from the circuit and still leave the lamps burning in series. But suppose a few of the lamps on one side should burn out or be turned off; this would permit a rise of voltage on the "light" side of the circuit and the lamps would be burned out. To overcome this, and still save one fourth of the wire required for a two-wire circuit of the same capacity, we use one neutral wire to supply the difference in current when the load on one side is lighter than the other. Therefore the principal advantage of the three-wire system is a saving of copper wire, — quite an item in a large installation. But to return to the diagram, we have two arc lamps connected to the three-wire circuit. The reader will notice that the neutral wire is negative to one side of the circuit and positive to the other. By connecting one arc on each side of the circuit the load is "balanced" properly.

Figure 7 gives a form of connection that is very seldom used. Its chief recommendation is that it saves current. The two arcs are in series with each other and after they are started, the adjustable resistance, R, is partly cut out. With this method the operator must give his arcs great attention, for if one goes out the other will also. In starting the arcs, the resistance must be "in" and the carbons of one lamp placed tightly together. Now on striking the arc with the other lamp, the operator opens the carbons but a short distance. The second lamp may be started then by drawing its carbons apart. The resistance is next cut out until the light is sufficiently strong. This connection is useful only in the hands of an experienced operator and on a dissolving stereopticon. From an economical standpoint the method is good, as the two arcs burn no more current than a single one with a rheostat.

Figure 8 shows a voltmeter and ammeter connected in the circuit. The use of these instruments is strongly recommended as they enable the operator to tell at a glance just how much current he is using and if the line voltage is up to the standard. Very serviceable instruments may be purchased at a low figure from a second-hand dealer.

A glance at Figs. 7, 8, and 9 will give an excellent idea of the appearance of a modern projecting arc lamp. Observe the handles by which the operator may feed the carbons together, raise or lower the lamp, shift it from side to side and move it closer to or further from the condensing lens. These adjustments may all be made from the outside of the lamp-house and while the lamp is burning.

The carbons are held in place by means of clamps, as shown in Fig. 7. These clamps are adjustable and may be turned so that the carbons may be set in various positions. Figure 8 illustrates the proper method of "trimming" the carbons for use on direct current; the lower carbon advanced slightly forward of the upper. For alternating current we use the trim shown in Fig. 9 to obtain best results. In this case the carbons should both be of the same size, about $\frac{5}{8}$-inch, and should both be soft cored. For use with direct current, a $\frac{5}{8}$-inch soft cored upper and a $\frac{9}{16}$-inch solid lower carbon have given the writer best results. The very best grade of imported carbons should be used. On alternating current the arc will sometimes wander around the carbons and give the operator considerable trouble. This may be avoided to a certain extent by filing a V-shaped groove along the surface of both upper and lower carbon and placing the carbons in the clamps in such a manner that the grooves will face the condensing lenses. The groove has a tendency to hold the arc on the front of the carbons. The figures in Plate 4 give several other methods of trimming. Figure 1 shows an alternating current trim which seems to give results equal to the method described above. Figure 2 shows the appearance of the carbons after they have burned off a bit. Figures 3 and 4 show the direct current trim described above. Figures 5, 6, and 7 are angles used in spot-lights to a great extent, but in the writer's opinion do not possess any marked advantages over the ones first mentioned.

The arc light is started by first closing the switch, then bringing the carbons together for a second, after which they are separated about $\frac{1}{8}$ of an inch on direct current but not more than $\frac{1}{16}$ inch if alternating current is used. With alternating current, two distinct craters are formed, one on the upper and one on the lower carbon. In order to keep both craters in focus, we must have them as close together as possible, without "freezing" them. A blue "ghost" will nearly always be present in the field produced by an alternating current arc. This ghost is illustrated in Plate 6. In Fig. 1 of this plate the arc is too far away from the condensing lens and the spot of light on the aperture plate does not cover the opening. The remedy is to move the arc closer. Figure 2 shows the ghost when the arc is too near the condenser. This ghost may also be caused by the condensing lenses being too close or too far

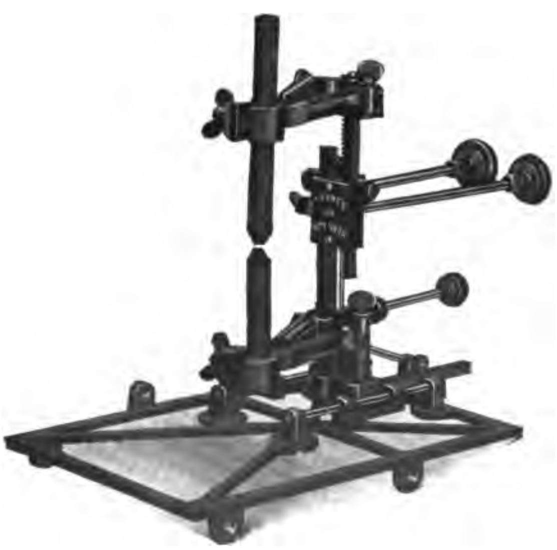


FIG. 7

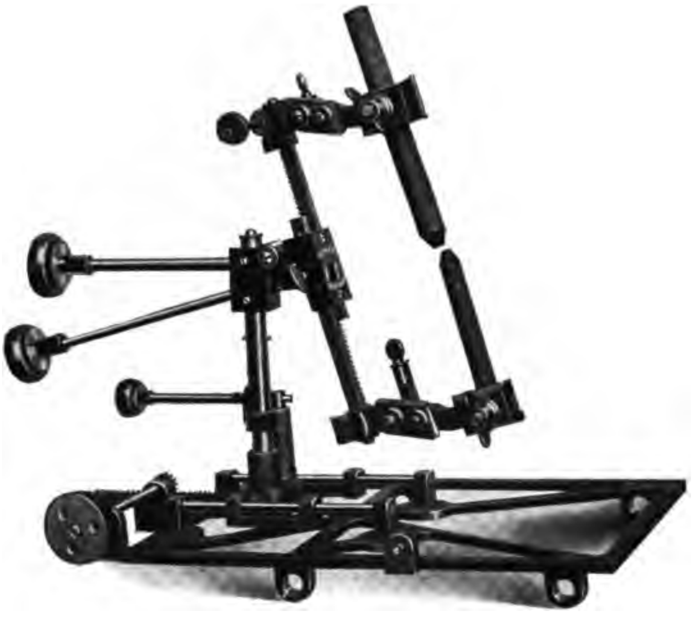


Fig. 8

away from the aperture. By moving the entire lamp-house back and forth on its slide rods the condenser may be brought in focus and the ghost removed. Figure 3 shows the ghost caused by the alternating arc burning too long; that is, the carbons are separated too far. Figure 4 shows the ghost caused by using a direct current trim on alternating current. Most of this description has been confined to alternating current ghosts, as those on direct current are easily removed. The ones most commonly found with direct current are those illustrated in Figs. 1 and 2, in Plate 6.

Generally speaking, the use of a "long arc" is preferable to a short one, on direct current, as the negative carbon gives practically no useful light and it has a tendency to form a ghost by obstructing the passage of the rays of light from the positive crater when the carbons are close together. However, there are comparatively few brands of carbons on the market that will burn a long arc without "blowing" to an annoying degree. A poor grade of carbon will invariably manifest itself if the arc is drawn out to $\frac{3}{16}$ of an inch or more, by the light flaring up and blowing. Then, on the other hand, if the operator places his carbons closer together, the negative carbon will usually form a thin sharp point called a "tack" or "spit." This "tack" gradually becomes longer and longer until it short-circuits the arc entirely, causing more hissing and blowing on separating the carbons. When a tack forms, the arc should be drawn out until it burns off.

Now, all of this hissing and blowing means an unsteady light on the screen which is most annoying to the spectator, as well as to the operator. The remedy is to use *good carbons*. Try out the different advertised brands, giving each a fair and impartial test, and when a carbon is found which will hold a fairly long and steady arc when properly trimmed, stick to that particular brand. Correct trimming is of the utmost importance, and next to this comes proper "feeding" as the carbons burn away. In starting the arc the carbons should be brought together *gently*, not with a sharp jerk, as that will often destroy a good trim. Separate them *slowly* until the arc is of the proper length, then bring them almost together again and immediately separate them to the proper extent. By repeating this operation a couple of times, the arc will become settled very quickly. The feeding of the carbons should be frequent and very gentle, rather than occasional and with a

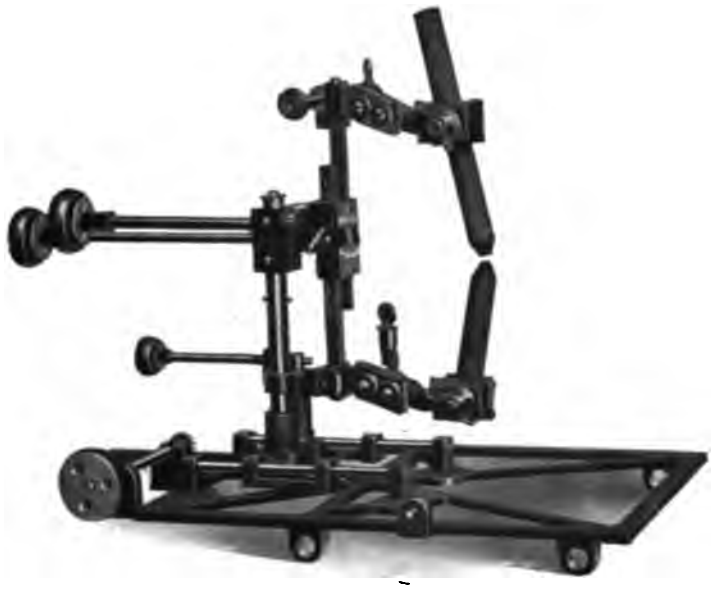


Fig. 9

jerk. It is far better to give the knob a slight touch every few moments than to wait until the arc is ready to blow and then feed with a sharp turn. The operator who feeds after the latter fashion invariably has an orange-colored streak of light through the lower part of his picture just before he makes the adjustment.

Another habit among operators is that of "freezing" the carbons together every few minutes.

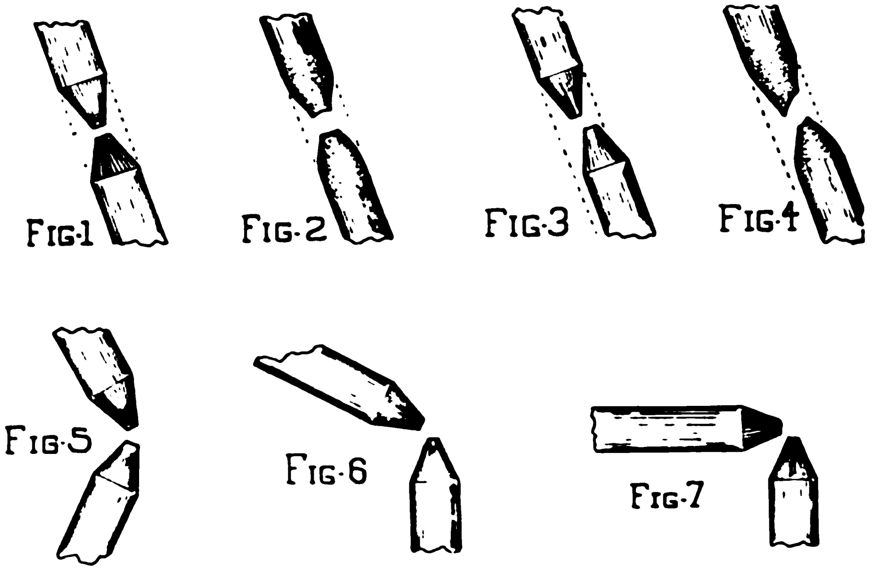


PLATE 4
STANLEY CURTIS '10

HOMEWARD E. T. HOLDING, WIMBLEDON

Royal Photographic Society of Great Britain Exhibition

Not only is this annoying to the audience, but it is most destructive to the rheostat. To substantiate this assertion, the writer will give the results of a test made recently in the booth of one of Boston's leading theaters. The circuit consisted of a standard Power's Circular Rheostat, 10 feet of No. 6 asbestos covered cable, 50 feet of No. 6 solid conductor leading to rheostat outside of booth, ⅝-inch soft cored positive and ½-inch solid negative carbon of the "Bio" brand, the whole connected to No. 6 service wires. Carbons new when placed in clamps and projecting 4 inches from same. The voltage was 110, and five points were cut out on the rheostat. A Western D.C. Ammeter nserted in series showed 47 amperes on striking the arc, the current falling almost instantly to 42 amperes when carbons were separated ⅛ inch. After one minute the reading was 33 amperes; two minutes, 28 amperes; three minutes, 24 amperes; and after eight minutes the current was 26 amperes with $\frac{5}{16}$-inch arc. The switch was then opened and the carbons permitted to cool for five minutes. On striking the arc the meter read 42 amperes while carbons were together and 26 amperes when separated. On freezing the carbons the current was invariably increased from 26 to 42 amperes, and this obviously heats the rheostat to an injurious degree.

It will be found necessary on alternating current circuits to use far more current to obtain a satisfactory light than on direct current. The connection shown in Plate 1, Fig. 2, will give the desired

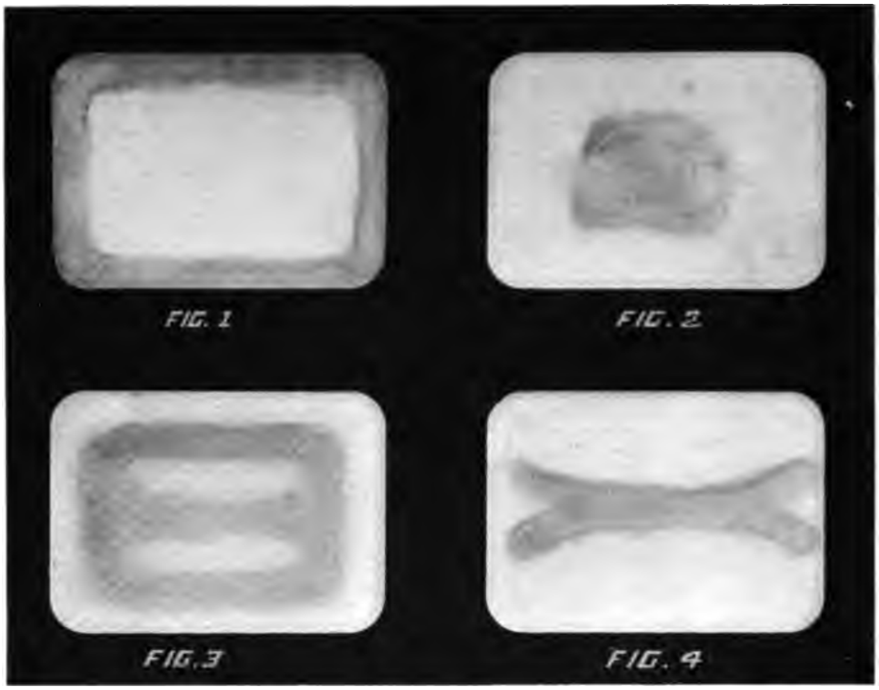


PLATE 6

increase in amperage. However, a far better light, at less expense, may be obtained by using a "step-down transformer" or "economizer," which will be described in detail in the next article of this series.

(To be continued)

EASILY MADE TITLE SLIDES FOR LANTERN LECTURES

A FELLOW OF THE ROYAL PHOTOGRAPHIC SOCIETY

NOTHING in a lantern lecture creates such a good impression as a good title slide, but they appear to be very rare. The average lecturer pays particular attention to the set of slides he prepares, but rarely thinks of a good title slide, or if he does, it is an afterthought, and such a slide is perhaps carelessly made. It is said in England that in order to be considered a good lecturer with a lantern one must start with either an apology or a map, but I for one always look for a good title slide.

Title slides are easily made, and not a few workers write the title on the first slide with ink, a method which in my opinion is rarely successful, although it may be easy. The making of effective title slides ought to be a very easy matter to subscribers to such an artistic production as AMERICAN PHOTOGRAPHY, and a few hints on my method of working may be of service to users of a lantern.

When I am preparing a lantern lecture I keep on the lookout for suitable advertisement and other designs published in papers and magazines. One may often find one exactly suitable for a title slide, but if not exactly suitable it may be made so in several ways. The method, in brief, is to cut out the design, paste it upon cardboard, and some white paper over any lettering, and to write on a suitable title, or if the photographer is not good at lettering, letters may be cut out and pasted on, the whole is then photographed to a suitable size for printing upon a lantern plate.

At the time of writing the June issue of AMERICAN PHOTOGRAPHY is before me, and as usual it is full of artistic designs. Were I preparing a lecture on Pictorial Landscape Photography I should use the tail piece on page 356, and prepare it as Fig. 1, which makes an effective title slide. If a real black and white result is wanted, a "process" plate may be used for the negative and a black and white slide made from it. Or should no "process" plate be at hand, other methods may be employed for making a black and white negative on ordinary plates. When the latter are used the best way to make a good black and white negative of a line subject is to very slightly underexpose, and develop with the following one-solution hydroquinone developer, which, with a suitable exposure, gives an ideal black and white negative on an ordinary plate: —

Hydroquinone	24 grains
Soda sulphite	½ ounce
Formaline	30 drops
Water	3 ounces

Development should be stopped the moment the lines (white on the negative) begin to veil over. The negative should then be fixed and washed as usual; if then the blacks are not black enough and there is not sufficient contrast, the negative can be intensified, preferably with a lead intensifier, made according to the following formula: —

Lead nitrate	20 grains
Pot. ferricyanide	30 grains
Acetic acid	10 drops
Water	1 ounce

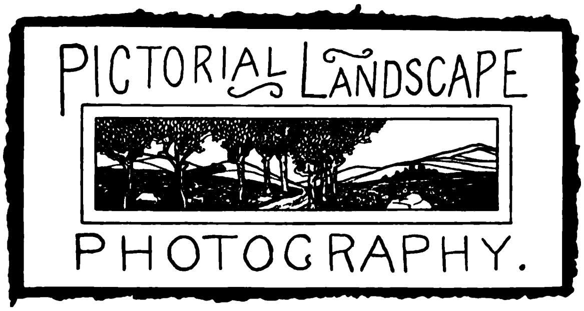


FIG. 1

Bleach in the above wash in water made slightly acid with nitric acid, then in water, and reblacken in a solution of ammonium sulphide, one part of sulphide to ten parts of water, or redevelop with an old hydroquinone developer, and finally wash.

Although when copying line drawings for title slides I always aim for a black and white negative, I do not always make a black and white slide from it. I prefer to develop or tone a slide so as to get a warmer color than black—usually a good brown—as a black and white slide usually looks harsh, as indeed it should, and funereal.

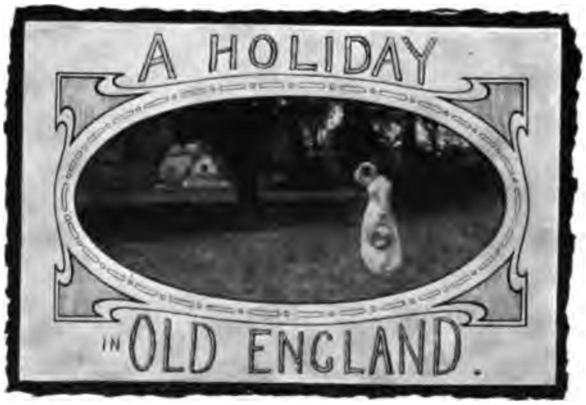


FIG. 2

Some may prefer an actual photograph instead of a line drawing embodied in the title slide; if so, certain designs come in very useful. On page 315 of the June issue of AMERICAN PHOTOGRAPHY is a suitable design surrounding a photograph by my friend Neame. To use it one has only to cut out the picture from the design and to use the latter as a mask; paste the whole upon card, write the desired title, reduce it down to lantern slide size, and there you are, as illustrated in Fig. 2.

In a case of this kind an ordinary plate and developer would be preferable to a process plate, in order to render the half-tones. The slide as a whole may then be toned, or the center picture only; while another plan is to dye the slide, except the picture part, so as to tone down the whiteness. Any amount of changes may be rung on such a slide by toning or dying and very effective title slides made.

Thus it will be seen that artistic title slides are not difficult to make while the editor continues to give us such artistic and suitable designs for the purpose. The source of the design can always be named and the method of making such a slide briefly described. I know by a long experience the interest it creates, as after my own lectures before a photographic audience I have often been asked for further details of my process of title slide making, — a process which I believe is comparatively new, and little known.

MOONLIGHT PHOTOGRAPHY

WILLIAM S. DAVIS

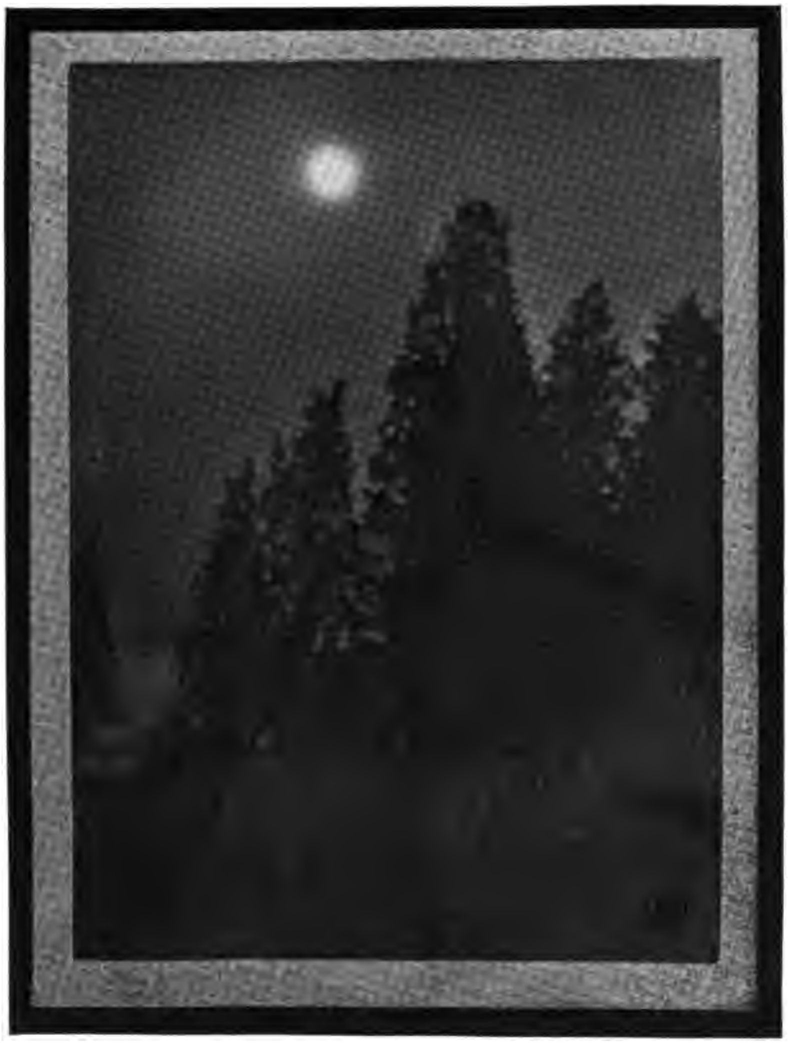
NIGHT photography has within a few years attracted considerable notice, and at least one society is now devoted to its advancement; yet practically all the work accomplished so far has been done with the aid of artificial light. Very beautiful studies of buildings and street scenes illuminated by incandescent or arc lights have been obtained, it is true, but I believe equally interesting and pictorial work may be done in the open country by moonlight only, and considering the fact that town views by electric light are not available to every worker, this hitherto neglected branch of night photography should prove of interest to many.

In calling it a neglected field of work I do not forget that winter views occasionally appear, but they are few in number and are always taken when there is snow on the ground. The other views which pass as "moonlights" are simply "fakes," made by snapping against the sun with the shutter set at high speed, and however pleasing the results obtained by such a method may appear at a glance, they cannot, in my opinion, compare in interest with genuine night scenes.

While I have been interested for several years in moonlight effects as subjects for paintings, it is only recently that I've done any systematic photographic work by night; still, having kept careful notes regarding that already accomplished, it is hoped the information given here will prove of practical value to others who may be interested.

Before taking up the technical side of the work it may be well to consider the salient features of night scenes, for unless one understands both cause and effect it is impossible to produce with certainty in a picture the sensations conveyed to the mind by a particular effect in nature, and all the knowledge possible regarding chemical or mechanical manipulations, important though they be in making one master of the means of expression, will not be of any service if a proper understanding of the *subject itself* is lacking. However, so far as this phase of the matter is concerned, nothing which one may say can take the place of personal observation, and those interested should never lose an opportunity of getting out in the open and studying directly from nature; so what I have to say should simply be taken as suggestions regarding the most important features which should be especially noticed.

Probably the first impression generally produced by moonlight is a feeling of vagueness about the forms of individual objects composing the view, which, instead of standing out separately with more or less distinctness of outline, as they do by daylight, are grouped together into broad masses of dark tones with shadows of mysterious depth and impenetrability, in which the lines



EDGE OF THE WOODS — MOONRISE WM. S. DAVIS, ORIENT

of the minor parts are fused or blended together until they are quite lost in the uniform tonality of the deepest shadows.

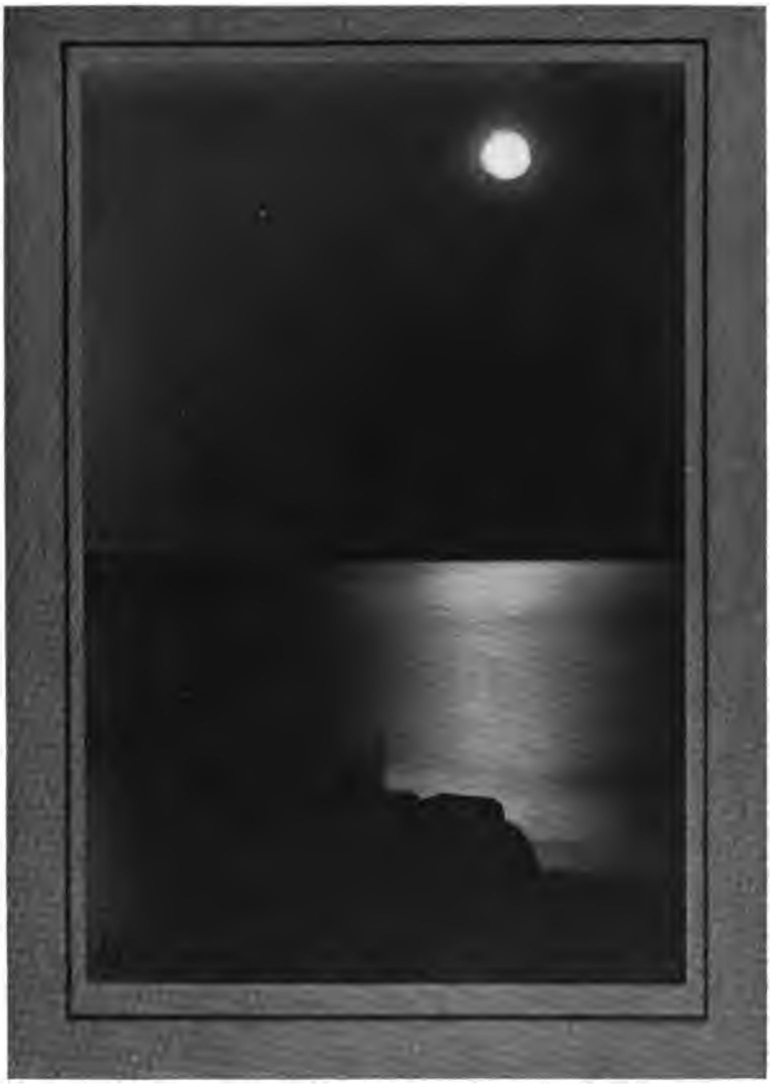
The half-tones will form but a small part of the whole, unless one is looking over flat fields, meadows, or water. Their proportion will of course vary according to the height of the moon.

If the moon is within the composition it should be the brightest spot in the picture, and the other "lights" must give way to it, but if not included, then its reflection on the edges of objects against the light, or upon the water, will constitute the lightest tones of the picture. In either case the high lights will be concentrated on a clear night and somewhat diffused on a foggy or hazy one.

From the foregoing observations these general rules suggest themselves: —

1. The transition from half-tones to shadows, or *vice versa*, must be extremely delicate, and the dark and half-dark tones will be largely in excess over all others.

2d. The deepest shadows should be flat in tone and not contain much, if any, detai



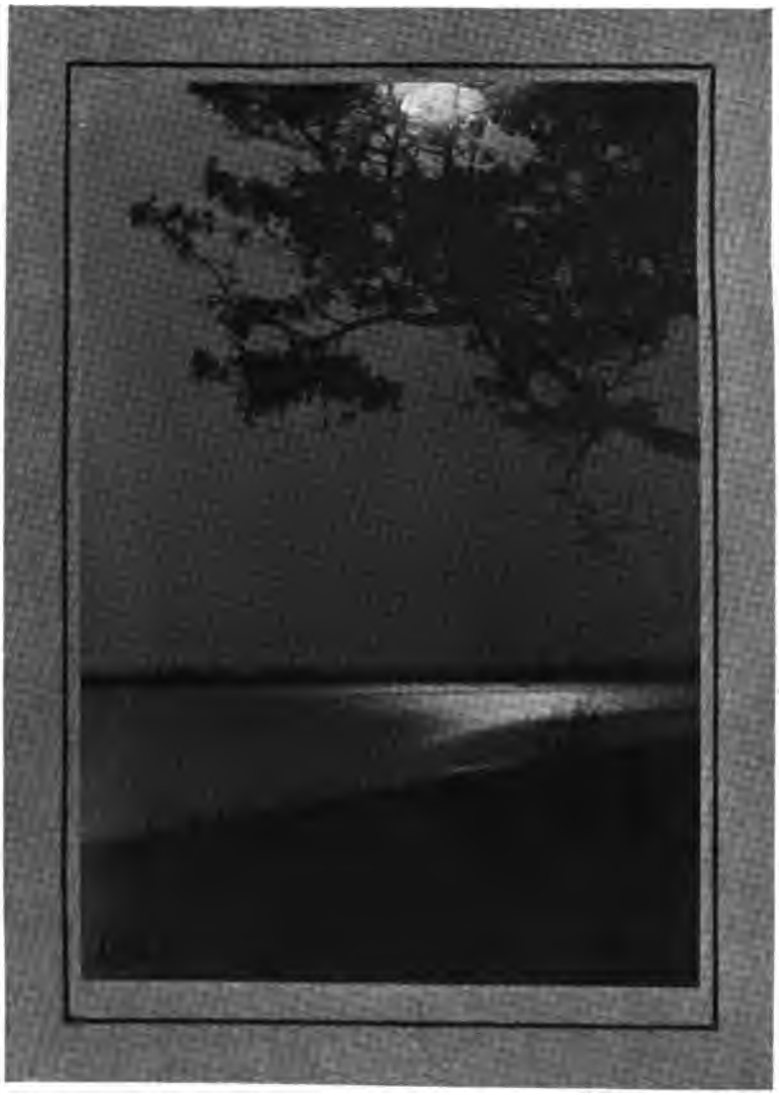
MOONLIGHT ON THE HARBOR WM. S. DAVIS, ORIENT

does not mean that they should necessarily be represented by pure black in a picture, but rather a dark gray, for the diffused light in the atmosphere is generally sufficient to produce a sense of grayness in the deep shadows, especially in and beyond the middle distance.

3d. Keep the highest tones together near (not in) the center of the composition. By so doing there will be a gain in brilliancy without loss of delicacy, and as the darker tones surrounding them melt in with the margin of the picture the feeling of space outside the limits of the composition will be increased.

If these points have been secured in the negative one should have a good basis to work from, but as it is the print which tells the story of success or failure, a note here regarding the "key" in which the finished picture should be pitched may be in place.

We know that moonlight is many thousand times weaker than sunlight, and theoretically a scene illuminated by moonlight would be proportionately darker, yet experience proves that visually



SHADOWS DARK AND MOONLIGHT SHEEN WM. S. DAVIS, ORIENT

such is not the case, and a study of successful pictures of moonlight shows that they need be not much, and sometimes no lower in tone than many daylight effects, as the feeling of night is secured rather by the proportion and distribution of the various tones than by their depth, as already suggested.

This lessening of the differences in tonality between day and night scenes may be accounted for in several ways. From a visual point of view, the eye, not being able to measure accurately the immense differences in intensity of light which can be demonstrated as a scientific fact, accommodates itself by the use of an iris diaphragm which closes in strong and opens wide in feeble light; so the retina never receives the impression of as great a difference as really exists. Pictorially considered, one thing which helps an artist is that every picture must be regarded by itself, independent of the relative tonality of others by which it may be surrounded, which is fortunate, as the tonality of all works of art is limited by the physical, one might say conventional, tonal scale to be found between the extremes of pure black and white. Such being the case, it follows that the success of a picture depends not upon giving the actual contrast found in nature (which as shown is impossible), but upon the vividness with which the work *suggests* to the mind of an intelligent observer the *actual subject* as seen by the artist. For this reason a selection of those tones which are nearest in *relative* value in our limited scale to those in nature will serve to produce a sufficient illusion to convey the desired impression.

Having only touched upon the very important subject of "values," I would recommend to those who wish to look into it more thoroughly a careful reading of the chapter on that subject in Birge Harrison's book on "Landscape Painting" (published by Messrs. Scribner's Sons), which, by the way, contains much other information of value to photographers who are working for pictorial results.

In arranging the composition of a moonlight picture it is most important to consider well the lines formed by the edges of the objects against the sky, as much depends upon the pleasing decorative quality which these possess. It may be the graceful line of a twisted tree trunk cutting the space into interesting divisions, or the curving line of a winding stream; but whatever it is, one strong line should predominate.

When hunting for suitable compositions I generally go over the ground by daylight with a pocket compass in hand, and in this way locate the position of the moon, or its reflection on the water. During the summer months it rises when full nearly in the southeast in this latitude (Long Island, N. Y.), and in winter more in the east; so by keeping this fact in mind one can decide upon the best place to set up the camera beforehand, which not only saves time and trouble later, but also the disappointment after reaching what was thought to be a desirable spot of finding that the moon will not come where it is wanted in the composition.

Morning is a good time to look up subjects, as the sun is then in a similar position to the moon, so by half closing the eyes one can see the subject *en masse*.

Coming now to the "field tactics" and after manipulations; the outfit best adapted to the work deserves a little notice. The two requirements in the camera are that it should be of the focusing type, and sufficiently simple to manipulate, so that all the working parts may be operated by sense of feeling if necessary. All the accompanying pictures were made with a long bellows reversible-back view camera of simple and substantial construction, fitted with a good rapid rectilinear lens having a working aperture of f. 8. This is the smallest opening which can be used conveniently in night work, and on account of lessening the time of exposure it is all the better if a lens with a larger aperture is available.

A strong tripod, rubber focusing cloth, and some pieces of black gummed paper (the use of which will be explained presently), will, I believe, complete the field outfit.

In loading the holders select the fastest grade of some good brand of color-sensitive plates. I cannot see that it makes any difference in this work whether the plates are backed or not, but in some cases it might be an advantage if they were.

As a rule the most convenient time in each month for securing the pictures will be one or two evenings before the moon is full, as it then rises early enough to allow one to start out while a little daylight still remains and put in a full evening's work. For moonrise effects the diffused light of the afterglow may be used to shorten the time of exposure without danger of losing the desired effect, and if the moon is to be included the slight flattening of the disk will not be noticeable when it is so nearly full.

In marine work in harbors or on tidal rivers where vessels are shown at a wharf, or the water line along a flat shore is included in the picture, it is better, if possible, to make the exposures at "slack water," that is, either at full or low tide, as then no rise or fall takes place for half an hour, which will prevent some of the objects being blurred from a change of level during the exposure.

THE SILVER GLEAM WM. S. DAVIS, ORIENT

If any difficulty should be experienced in locating the image properly, on account of the weakness of the light, the old trick of rubbing a little vaseline or glycerine on the ground side of the focusing screen may be resorted to.

For many subjects, such, for instance, as a clump of trees in full foliage, some diffusion of the image will greatly help the general effect, but like some other things this is best left to the individual judgment of each worker.

Exposures will range from ten to thirty minutes on a clear night, with average class of subjects, using stop f. 8 and fast plates. There is considerable latitude in the matter, except on the side of under-exposure, for of course if the image is not on the plate it cannot be produced by the developer, so do not be afraid of over-exposure. Those suggested are given as the shortest which would be likely to give good results, but in any given case twice as much would probably do no harm. Those who wish more definite information will, however, find it in the data regarding the accompanying illustrations.

How to include the moon in the picture without showing motion, due to the length of exposure needed for the landscape, or doing any "faking" on the negative, seems to be a puzzle to many; but I can assure the reader that where the moon appears in the pictures shown here it was obtained without hand work or other retouching on the negatives; and it is not so difficult "when you know how."

There are two methods by which it may be accomplished, one being as follows: Wait until the moon is high enough to be out of the field of view included by the lens, focus and expose for the foreground as usual, remove plate holder, then tilt the camera or raise the front until the moon comes where it is wanted in the composition, replace holder and give a short exposure for the moon alone. From ten to thirty seconds will be ample with the lens at full opening, and that amount can safely be given without danger of showing any motion, or of obtaining a double image of the landscape, provided it is really dark when the work is done. For early moonrise effects it is safer to adopt the other method, namely, that of exposing a separate plate for the moon and laying this negative back of the foreground plate when printing.

Care must of course be used, especially where the first method is employed, to locate the moon exactly where it is wanted, and to facilitate this I take along some gummed black paper, referred to previously as part of the field outfit, and before moving the camera to include the moon I decide upon the spot it should occupy (care being taken when its light is reflected upon water to have it line properly), and then attach a piece of the gummed paper, in which a hole about a quarter of an inch in size has been made, to the focusing screen, so that the image of the moon when seen through the opening will come in the desired place.

A point worth considering here is that the image of the moon produced by the short-focus lenses usually fitted to cameras at the present day does not *appear* as large as the eyes see it. For this reason it is better to use a lens of about ten-inch focus on a 4 x 5 plate, for while the image of objects in the foreground can be made larger with a short-focus lens by moving the camera nearer, the size of the moon depends entirely upon the focus of lens. If, however, one has only a short-focus lens to work with, the size of the moon may be slightly increased, and the atmospheric effect improved, by drawing out the bellows a little beyond the point of sharp definition.

With the exposures already indicated the plates should develop up quickly in any good developer of moderate strength. I like edinol-hydro, which works clear and soft without bromide, and the following formula will be found a good one :—

Water	8 ounces
Edinol	5 grains
Hydroquinone	7 grains
Sodium sulphite (dried)	50 grains
Sodium carbonate (dried)	75 grains

At a temperature of 65° Fahr. this developer should yield good negatives from plates which have received the exposures mentioned, in from five to fifteen minutes.

Much can be done by suitable printing and mounting to increase the effectiveness of the finished pictures. Bromide or "gaslight paper" prints are good, especially for small sizes, and they can generally be improved by slightly staining the film in a weak bath of blue aniline, which will add to the feeling of moonlight. The gum process is also well adapted to these subjects, the texture of the coating being most effective in the broad, flat masses of tone which occur in moonlight pictures. If carefully prepared very delicate prints can be obtained even from negatives of small size.

In mounting; black or very dark green in combination with gray will set off the prints to the best advantage by keeping the general effect simple and unobtrusive.

DATA REGARDING ILLUSTRATIONS — "Spring Moonrise." Taken in April, about 7.30 P. M., one night before the full moon. Exposure, eight minutes for foreground. Twenty seconds for moon on same plate. Seven and a half seconds r. r. at f.8. 4 x 5 Cramer Inst. Iso. Print for reproduction made from negatives copied from gum print of original.

"Shadows Dark and Moonlight Sheen." Made in June, two nights before full moon. Exposure, twenty minutes (from 8.15 to 8.35 P. M.). Same lens and stop as preceding. 3¼ x 4¼ Inst. Iso.

"Moonlight on the Harbor." Taken same evening as last-named one. Exposure, ten minutes (from 9 to 9.10 P. M.). Fifteen seconds for moon on same plate. Image of moon made larger by drawing the focus as described in article. Seven and a half seconds r. r. f. 8. Cramer Inst. Iso.

SPRING MOONRISE WM. S. DAVIS, ORIENT

"The Silver Gleam." Taken same evening as last two. Exposure, twenty minutes (from 9.45 to 10.5 P. M.). Seven and a half seconds r. r. f. 8. 4 x 5 Cramer Inst. Iso.

"Edge of the Woods — Moonrise." June. Exposure, five minutes (from 7.45 P.M.). Some light from afterglow — slightly hazy. Seven and a half seconds r. r. f. 8. Cramer Inst. Iso. 3¼ x 4¼. Moon taken on a separate plate, 10 P. M. Exposure, forty-five seconds, with thirteen-inch back lens of r. r. at full opening (effective aperture for back lens, f. 15).

* * *

TRIMMING AND MOUNTING

BURTON H. ALLBEE

THE last word has not been said upon this important topic. Perhaps it is quite as accurate to say that the last word never will be said. Each photographer will introduce something original with himself, either consciously or unconsciously. Each one who makes a print, whether large or small, will mount it in his own individual way, following, perhaps, in a general way, the methods advocated and followed by others. But even if he means to follow them closely, it will be seen that eventually he will fall into a way of his own that will be quite as individual as his other operations.

Perhaps the principal thing to be borne in mind is that the mount is intended only to preserve the print for display purposes, not to embellish it. In other words, it is in a degree a holder. The color adopted and the form should be such as will emphasize the pictorial qualities of the print, or strengthen its weak portions, but nothing further should be attempted. The moment embellishment begins, the print is weakened and dwarfed, which is only another way of declaring that it is spoiled.

Plain mounts are always best. Gray or carbon black are suitable for a larger proportion of the prints made by amateurs. Sometimes plain white is better, but this is an infraction of the rule. The double mounting and the arrangement of a number of colors or tints in narrow lines under the print will come with the more advanced amateur work, but at the beginning the plain black or gray is preferable, and will generally display the print to best advantage.

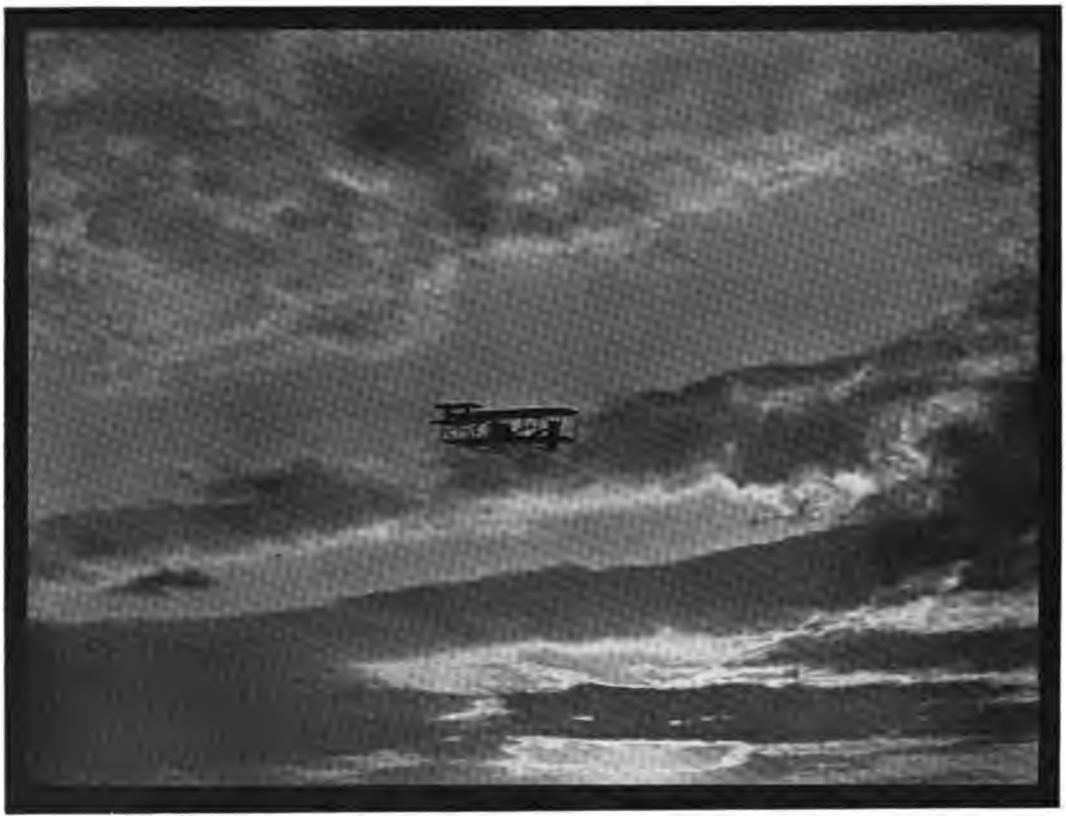
Perhaps it would be well to modify this assertion a trifle with reference to the printing-out paper prints which are frequently of a brown tinge, or when at their best are somewhat dark purple. A brown mount, as smooth as the print, — not glossy, but smooth, — will generally make the best mount for these pictures. It will be easily seen where the color and tint of the mount emphasizes or subdues the tints and colors of the print; and it will be seen, as tint after tint is tried, what a difference there is in this respect.

It is impossible to lay down rules which will apply to any two tints. The play of light and shade is as various as the prints. In one the darks predominate. Such prints need a different mount from one that carries more light than it does shadow. One will look better on gray, another on carbon black, and another on a different shade entirely. Only experiment will determine what is best to adopt in certain cases.

A good way is to trim the print to what is thought to be a proper proportion, if it requires trimming at all. Then stick it lightly by the corners and place it on a mantle or some other bit of furniture well toward the level of the eye, with the light striking it from the same direction as the original scene. If the picture is harmonious, if the important points are brought out, and the whole makes a pleasing combination, it is safe to allow it to remain like that.

Some have said that this is too much trouble. Of course that may be true in some instances. Much depends upon the individual. All the operations of making the picture thus far have tended toward one end, — the proper display of a picture, a scene which interested the photographer and led him to use a plate, developer, finally printing paper, and now he is ready to put it where others can see it. Shall he stop short of the best possible display because it requires a little time to determine what display is best? If he does, all his previous effort is nullified, no matter how good the negative may be, no matter how good the print may be, no matter how beautiful the scene itself. The whole effect is lost if the picture is not properly mounted. And to do that requires careful study of the picture with relation to the mount which is to carry it.

Few will disagree with this assertion. And probably every one can remember prints which possessed every element of beauty which were utterly spoiled in the mounting. And undoubtedly



WRIGHT'S AEROPLANE
C. H. CLAUDY, WASHINGTON
Made with a Bausch & Lomb Tessar 1c

it was because the operator carelessly stuck them on to whatever mount was first at hand, without reference to the effect upon the appearance of the picture. In other words, the picture and mount were not studied with relation to each other before they were fastened together irrevocably.

It does take a little time to study out the best combinations of this character; but when the thing has been decided, after careful consideration, the result is always sufficiently pleasing to make it well worth while.

There are a few rules which cannot well be broken, excepting in instances which require some special treatment. One is that the print should not be placed squarely in the middle of the mount. Let the side and upper margins be the same. The lower one should be about half as wide again as those three; in extreme instances, perhaps, twice as wide; but that must be determined by the picture itself, its subject having considerable influence upon the way it should be mounted. In general, however, this rule holds good.

Very many mount their prints in the center of the card, with the greatest precision, and then wonder why they look uneven. It is a peculiarity of our vision that the eye corrects certain errors which are made in different things. Like the letter S, for example. The top is always smaller than the bottom, as can be readily seen by turning the page upside down. The eye corrects that, and makes the two parts look the same. And the apparent error in mounting, when the bottom margin is made wider than the top and sides, is corrected in the same way and the picture looks balanced.

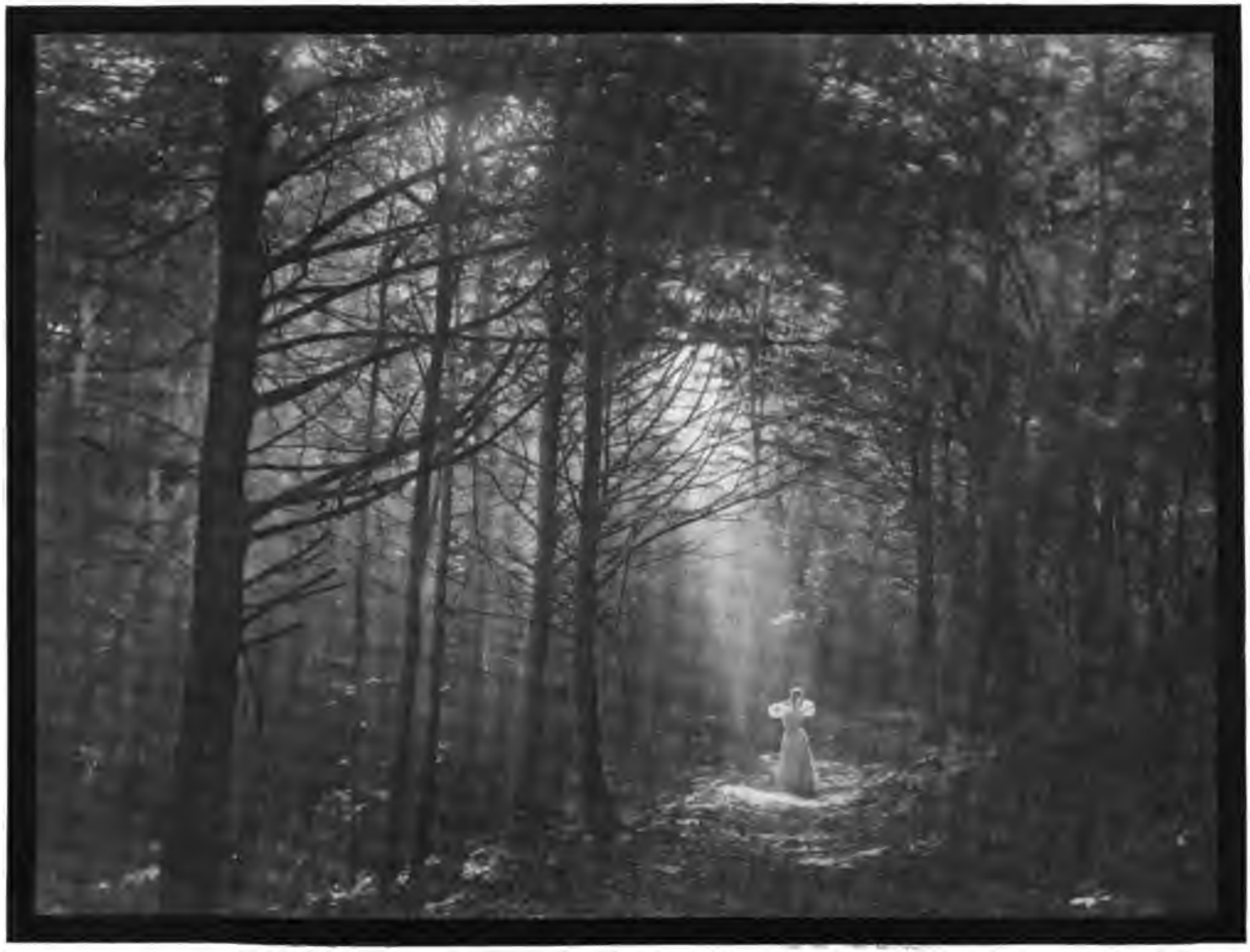
If you want to give your picture the appearance of breadth, place it on a mount with the end margins wider than those at the bottom and top. If you want to make it look narrow, reverse this, and have your end margins wider than those at the sides. The illusion will assist in displaying the print properly and in creating the impression you wish to convey.

These seem like trite observations, and apparently everybody knows what to do under such circumstances; but the writer has been asked a dozen times within the past week how he obtained certain effects in mounting, all brought about by these simple expedients which require practically no knowledge beyond that required to stick the picture on the mount. New camera enthusiasts are coming into the field every day; and old ones are searching for methods of making their prints look better. These are the inquirers and these are the ones who deserve encouragement in their work and in their effort to improve.

Probably a vast majority prefer and use the slip-in mount, as it is called, chiefly, perhaps, because it can be used without paste or other muss and because it is easily changed if desired. But the slip-in mount allows no opportunity for individual expression. The margins are a certain size and width and cannot be changed. You trim your picture to the proper size and slip it in. That is all you can do, and whether it looks well or ill, you have had very little to do about it. The work is reduced, but the appearance of your picture is correspondingly reduced as well. And in numerous instances you will wonder why it is that a good negative and a crisp print has not made a more satisfactory and pleasing picture. Your last operation was too hasty. You did not study your mounting. You merely slipped your picture into a prepared mount, cut it to the same form as every other picture used in a similar mount, and your picture suffered in proportion. Try it upon a mount cut purposely for it and see what a difference it will make.

Mounting, like every other operation in photography, improves by study and practice. You cannot learn it all at once. You will not be able to mount a picture satisfactorily the first time, but gradually you will learn how to do it. Slowly you will come to understand why it is necessary to do a certain thing, and eventually you will become so proficient that you will be able to determine accurately each time what you need to make your picture show to best advantage.

As was said before, the slip-in mount is popular chiefly because it does away with paste or other adhesives. There is a mounting tissue on the market which takes the place of paste and is



HEART OF THE FOREST *First Prize, Monthly Competition* L. EMMERT, HUNTINGDON satisfactory in every way, but some amateurs will be barred from using it because of the additional expense, and these will have to rely upon the old-fashioned paste.

The directions which tell how to mount pictures always say that they must be mounted wet. But often it is impossible for the photographer to mount them before they dry. A variety of reasons may prevent; but whatever it is, the difficulty is there, just the same. What can he do, then, to mount his pictures correctly?

This is the way the writer does it. He mounts them dry. He takes his mount and trims the picture to fit it. Then he lays the picture on the mount, face up, to determine exactly where it should go. Move it around and study it carefully. Sometimes you may want to trim a bit more from one side or the other. When you have decided where you want it to go, take a sharp pencil and make a mark at the two upper corners.

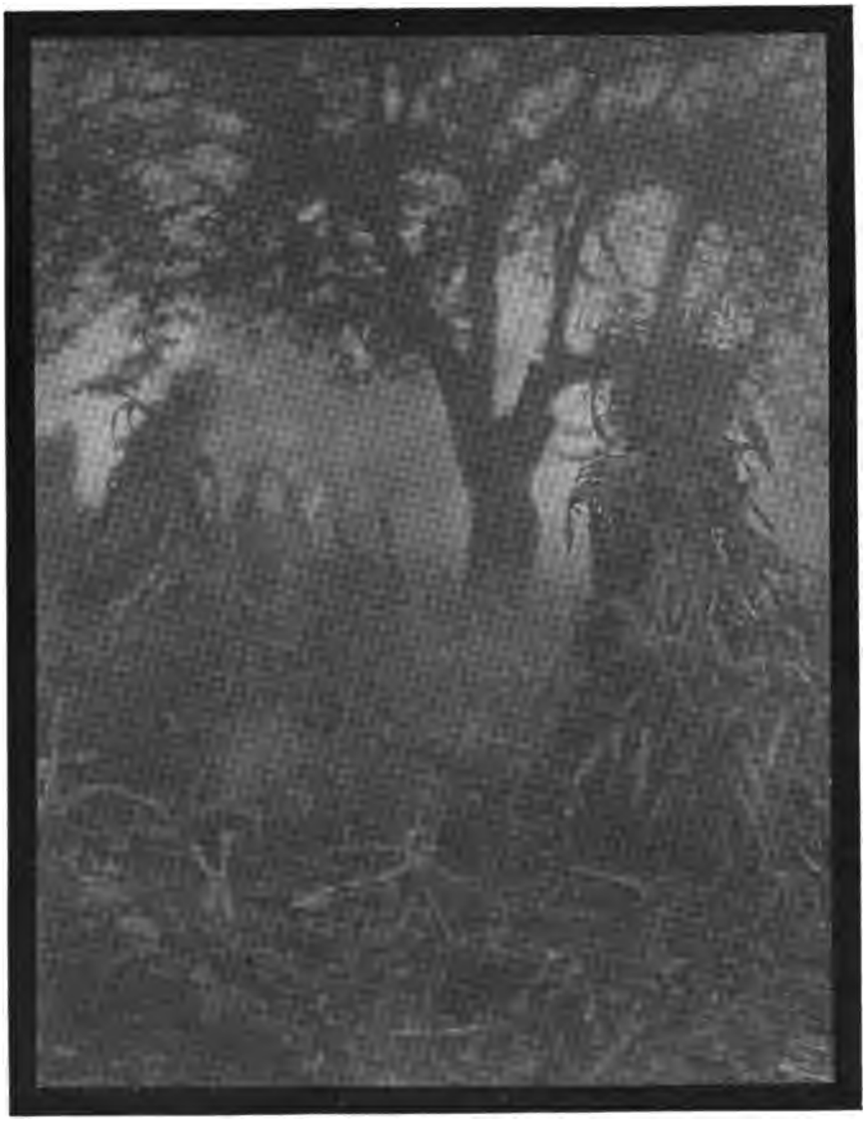
Then turn the picture over on a newspaper, or something else equally useless, and brush the back over carefully with photo mounting paste. It can be moderately thin and work well. Take it by the upper corners and place it on the mount with the corners at the two pencil marks. Take a soft cloth or the hand and press into contact with the mount. Then take a cloth and rub from the center outward. This squeezes out all the air and makes the picture lie smooth.

Sometimes a bit of paste will squeeze out from under the edge of the picture, but a damp cloth will remove that. I find this more satisfactory than wet mounting, largely because it gives opportunity to study the picture before it is stuck down permanently. Sometimes I fasten it to the mount by a drop of paste at the upper corners and study it carefully on the mount, setting it up and looking at it from a distance. In this way any change desired can be made and the picture placed in the most advantageous position with relation to the mount.

It sounds difficult to make the explanation, but it is really more simple than wet mounting and affords so much more latitude in manipulation that it seems to me the best way.

At first it may be necessary to measure the sides and top to get the margins even, but after some practice it will be found that they will not vary enough to make any difference in the appearance.

One feature of this system of mounting seems particularly good to me. Some pictures look better with a white margin around them, others do not. Sometimes one wants to change the margin after it has been made. When mounting dry in this way the margin can be made narrower if it doesn't suit, and it can be changed in any other way before it is fastened to the mount. It seems to me the only satisfactory way to mount photographs. After one becomes used to it, there will be no more difficulty than the other way, and the results will be far more satisfactory in every sense. To my mind it removes most of the terrors of mounting and makes it a really pleasurable part of the photographic processes.



FOGGY MORNING IN A CORNFIELD
DR. F. F. SORNBERGER, CORTLAND
Second Prize, Monthly Competition

EDITORIAL COMMENT.

A POSSIBILITY

WHEN one crosses the Atlantic on one of the larger and more recent ships, one is likely to be much impressed with the many innovations designed for the comfort and entertainment of the passengers. Some of the newer ships have very good shops on board, where all sorts of things can be purchased. On the boat deck of at least one modern liner stands a greenhouse, where strawberries in pots and salad greens are raised. The sight of this suggested the thought that some enterprising professional might do worse than to secure a concession for a photographic studio on a crack liner. The opportunity is ripe. Keels have been laid for four ships of enormous size, each larger than the "Mauretania." While two of these giants, one English and one German, are destined to break all records for speed, the White Star ships will be comparatively slow, requiring nearly six days for the crossing. Such boats will be crowded in season and out of season, drawing their patronage solely from people of means. They will be so steady that seasickness will be comparatively unknown. No one who knows how heavily time drags at sea with the majority of passengers can doubt that a first-class studio would prove a great attraction during the voyage. The sittings would afford a welcome relief from the tedium of lounging. With the aid of a competent staff of assistants, attractively mounted gaslight prints could be delivered before the end of the trip, and doubtless many orders for subsequent delivery could be booked, to be finished while the steamer was lying in port. The erection of a studio on an upper deck would be a simple matter, and the steamship company would probably build the structure and reception room without cost to the photographer, were the matter taken up before the completion of the hull.

PROFESSIONAL PHOTOGRAPHY ABROAD

A CAREFUL study of the work of continental professionals, especially those of the Germanic and Scandinavian countries, could not be without profit to American portrait photographers. Every man who is receptive to new ideas would derive great benefit from a regular study of, for instance, *Das Atelier des Photographen*, a German professional semi-monthly. Even if he could not read the German text, the illustrations would be well worth the price of the subscription. One of the tendencies which he would probably notice is that the best German professionals are distinguished by the versatility of their work. They look with avidity for new problems to solve, and make each portrait different in idea and treatment from those which have preceded it. In many cases the studio is an extensive suite, and the sitter is encouraged to wander about, examining the pictures and ornaments, sitting at tables or windows, until an interesting and characteristic pose is found. The result is that the portfolios of the better German professional are as diversified and interesting as those of a first-class amateur.

GROUP OF FRUIT JOHN W. SCHULER, AKRON

Third Prize, Monthly Competition

OUR PORTFOLIO

Owing to the absence of the editor on a European trip, it has been found necessary to omit this department entirely this month. We hope to resume it in the next issue, with all arrears of prints criticized as usual. We beg the indulgence of those readers who are sure to be disappointed by this omission this month.

OUR MONTHLY COMPETITION

This month's competition was general, and made possible the submitting of prints on various subjects.

The awards were: First prize, " Heart of the Forest," by L. Emmert. The maker of this print advises us that it is absolutely true to nature, and not a stroke of retouching was put on the negative. Second prize, "Foggy Morning in a Cornfield," by Dr. F. F. Sornberger; third prize, " Group of Fruit," by John W. Schuler. This was taken with a Poco camera, Stanley plate, pyro developer, two seconds exposure by light from north window.

Honorable mentions were as follows: " Gooseberries," by E. J. Brooking; " Woodland Scene," by B. V. Constantinov; " Maying," by A. B. Hargett; " On Guard," by Geoffrey A. Hollands; "At the Fountain," by Suisai Ito; " At the Bubble Fountain," by Alexander Murray; " The Inlet," by Richard Pertuch; " A Council of War," by Harry G. Phister; " Portrait," by George O. Stoddard; " Mammy," by G. Harrison Truman; " October Mists," by Harry D. Williar.

CHAS. E. DAWSON.

OUR TABLE.

Material for examination and books for review may be sent to Frank R. Fraprie, 221 Columbus Ave., Boston, Mass. Any book reviewed will be supplied by our Boston office at the price mentioned.

HOUSEBOATING ON A COLONIAL WATERWAY. By Frank and Cortelle Hutchins. L. C. Page & Co., Boston, 1910. Price, $2.50.

The authors of this attractive book describing a summer's experiences, conceived the pleasant idea of traveling up and down the ancient rivers of Virginia in a houseboat propelled by gasoline. They discovered many quaint communities, and sequestered waterways, both restful and picturesque, and their book charmingly describes their manifold experiences during this happy period. Evidently a skilled amateur photographer was on the craft, as the book is illustrated with a very large number of very pleasing photographs of buildings, landscapes, interiors, historic objects, all discovered on this trip. He who reads it will be strongly tempted to repeat the experiment.

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FROM IRISH CASTLES TO FRENCH CHATEAUX. By Norma Bright Carson. Boston, Small, Maynard & Co., 1910. Price, $1.75.

The author of this book originally wrote many of the chapters as articles of the *Book News Monthly*, of which she is editor, but collected in this book, with the gaps filled, and perfected to a whole, they make a most attractive impression upon the reader. The book is the story of a leisurely trip through Ireland, Scotland, England, and the north of Wales. It is the record of an observer who loved the spots she visited, because of their literary associations, and who was familiar with the history of them. Everything is seen with the glamour of literary association thrown over it. It will not add much to the well-read traveler's knowledge of the places described, but it will produce a strong desire to visit these places in the flesh as well as through the medium of another's words. The author used her camera to good advantage on her trip, and the book is attractively illustrated with photographs of many of the beautiful places visited.

PHOTOGRAPHING IN OLD ENGLAND. With some snapshots in Scotland and Wales. By W. I. Lincoln Adams, editor of the *Photographic Times*. Illustrated with photographs from nature by the author and others. New York, The Baker & Taylor Company, 1910. Price, $2.50.

Mr. W. I. Lincoln Adams, the editor of our contemporary, the *Photographic Times*, spent his summer in Europe last year. As a result thereof, he wrote a series of illustrated articles for his magazine on his experiences, and these, with due editing and some additions, have been collected into this very attractive gift book. Mr. Adams performed a leisurely journey, and noted many sights and amusing things, but looked on English life with the eye of an American, as is evidenced by his description of cricket, where he italicizes the fact that the "scores frequently reach *several hundred runs*." Such touches as these, however, fill the book with human interest, and make it a very vivid and interesting account of the author's trip. The concluding chapter gives some very admirable hints on photographing abroad, most of which are fully as applicable to work in this country. The illustrations are many of them of very large size, excellently reproduced, and beautifully printed on heavy paper. Mr. Adams can evidently practice what he preaches, as is proved by these photographs, many of which were naturally taken under unfavorable conditions.

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THE PHOTOGRAPHIC ANNUAL 1910–11: Incorporating The Figures, Facts, and Formulas of Photography. Edited by E. J. Wall, F. R. P. S. Sixth Edition, largely rewritten and revised to June, 1910. 287 pages. Paper covers, 50 cents, postage 8 cents; Cloth bound, $1.00, postage 10 cents. New York, Tennant & Ward.

We note several changes in the new edition of this popular "Annual" just received. The "Figures, Facts, and Formulas" section has been thoroughly revised, and all obsolete or superfluous formulas excised, by which this section has been compressed into two thirds of the space it formerly occupied. This has given room for interesting new features, in the shape of three detailed monographs on "Screen Plate Color Photography (Autochrome, Omnicolore, Thames and Aurora Methods)," "Stereoscopic Photography," and "Notes on Development." The treatment of these subjects is comprehensive, with all the latest formulas and developments. The useful "Glossary of Photographic Names and Terms" is retained, with a list of American and British patents issued in 1909.

* * *

THE exhibit of the Ansco Company at Milwaukee was one of the main attractions of Manufacturers' Hall, and excited much favorable comment from both photographers and manufacturers. Their booth consisted of a series of quartered oak panels in the form of a semicircle, supported in the front by two massive quartered oak pillars. One of these bore in gold letters the name "Ansco" and the other "Cyko." The ten screens were hung with Cyko prints of the highest quality by many of the best-known photographers of the United States. Cyko paper was also used by Commodore M. J. Steffens to make prints from his artificial light negatives taken at the convention, and we also understand that the excellent panoramic group of the members was taken on Ansco film, and printed on Cyko paper.

* * *

WE are advised by J. L. Lewis, 379 Sixth Avenue, New York, N. Y., that he will soon be ready to supply in the United States, Edward's Auto Screen Plates. These are orthochromatic plates, especially sensitized to be used without a screen. Mr. Lewis reports that his representative was very successful with Seltona paper and Barnet plates at the Milwaukee Convention and on his trip to and from the event.

* * *

G. GENNERT, 24–26 East 13th Street, New York, and 16–20 State Street, Chicago, the American agents for Hauff's Developers, are now importing Hauff's Pyrogallic Acid. This is of the usual Hauff's exceptional high quality and comes in a very convenient form, a heavy, white, compact powder which dissolves very rapidly in water. We advise all photographers to give this article a trial.

Address G. Gennert on your letter head or send your card for a free sample, which will be cheerfully given.

* * *

THE Cooke lens souvenir which was distributed by Taylor-Hobson & Company at the Milwaukee convention was a most excellent picture of the tallest building in the world, the Metropolitan Life Building, in New York City, taken with a Cooke lens. This picture shows the most magnificent definition from the near foreground to the extreme distance, and the feat of getting this 700 foot building on a 6½ inch print, from Broadway, is certainly a photographic achievement. We do not know whether any copies of this most attractive picture are still to be had, but those who were fortunate enough to receive a copy should treasure it as an example of perfect lens work.

* * *

WE note among the contributions of our readers an increasing tendency to use for pictorial work carbon prints. This is an encouraging inclination, as carbon is universally acknowledged to be one of the absolutely permanent processes. It is often supposed to be exceptionally difficult to work, but this is not really the case, as the manipulation is no more difficult than that of many other processes. This was well set forth in the series of articles by the Photo-Pictorialists on "Landscape Photography." Those who are interested in the carbon process should write to George Murphy, 57 East 9th Street, New York, N. Y., for a price list on Autotype Carbon Tissues, which also gives full directions for working the carbon process.

* * *

THE jury of award for the Kodak Advertising Competition, which closes October 1, will consist of the following: —

Mr. Robert Frothingham, advertising manager of *Everybody's Magazine* and *The Butterick Trio;* Mr. George H. Hazen, advertising director of *Century Magazine;* Mr. Walter R. Hine, vice-president and general manager of Frank Seaman Incorporated; Mr. F. R. Barrows, ex-president of the Photographers' Association of America; Mr. George H. Harris, of Harris & Ewing, president of the Photographers' Association of America.

* * *

RALPH HARRIS & Co. inform us that they expect their first shipment of the new Wellington Anti-Screen for rapid isochromatic work without a filter. The high speed of this plate makes it possible to photograph practically any subject from a flower study to a flying machine. Besides the regular plate of this emulsion, it can also be obtained "backed" for use where it is necessary to use a plate to prevent halation. The demand abroad is very large for this plate and no doubt will make a hit in this country. Further information and price-list can be obtained by sending to the sole United States agents, Ralph Harris & Co., 26–30 Bromfield Street, Boston, or 108 Fulton Street, New York.

* * *

A VALUABLE BOOKLET FOR PHOTOGRAPHERS. — As a really fine example of camera catalogue work this year's hand-book and catalogue of the Seneca Camera Mfg. Co., of Rochester, N. Y., "The Camera City," not only meets expectations but goes far beyond that point. It is filled with valuable information for every photographer whether amateur, novice, or professional.

Chief among many valuable suggestions is what to know when selecting a camera. Then follows a complete description of the entire range of photographic instruments from the low-priced box camera to the highest type of camera in existence, intended for use by the most expert artist engaged in the most delicate line of work. This description includes box and folding, plate and film pack cameras, stereoscopic cameras, improved view and studio outfits, and a new small pocket camera called the Filmett. The subject of lenses and shutters is covered in detail, and all photographic accessories, such as papers, developers, etc., receive careful attention. The book is a very valuable guide; and as the edition is not large, we advise our readers to write immediately. A copy may be secured free of charge by addressing Dept. A, Seneca Camera Mfg. Co., Rochester, N. Y.

* * *

NATURE PHOTOGRAPHS WANTED. — Edward F. Bigelow, managing editor of *The Guide to Nature*, advertised in this magazine, is also nature and science editor of the *St. Nicholas Magazine*. He desires to have submitted clear, sharp photographs of subjects in nature, especially novel, beautiful, or interesting. Address him for particulars at Arcadia, Sound Beach, Conn.

* * *

E. B. MEYROWITZ, 104 E. 23d Street, New York City, announces that a new Carl Zeiss lens, known as the Series IX Double Amatar, has been received. This new lens is of the convertible type, the front and back elements having different focal lengths. The largest aperture of the Double Amatar is f. 6.8, while the single combinations work at f. 13.5. An important feature of this lens is the remarkably low price considering that it is strictly Carl Zeiss in quality.

* * *

THE Defender Photo Supply Co. reports that Triple A gaslight paper is finding favor with advanced amateurs and professionals. The following developer has been shown by experience to give superior results with this paper:—

Water	12 ounces
Sulphite soda (dried)	120 grains
Carbonate soda (dried)	200 grains
(If soda crystals are used, double the amount.)	
Hydroquinone	30 grains
Metol	7 grains

When dissolved add 20 to 25 drops of ten per cent solution of bromide of potassium.

* * *

THE first edition of the "'AGFA' formulas book," we have been informed by the Berlin Aniline Works, is becoming rapidly exhausted and we would request our readers to forward the "AGFA" ticket, together with ten cents in stamps to the Berlin Aniline Works, 213 Water Street, New York, N. Y., and secure a copy of this valuable book, before the edition becomes exhausted.

A NUMBER of excellent books treat on the color toning of photographic prints, and a series of formulas have been published in trade journals in recent years, but all the methods evolved seemed to have one drawback or the other, and the amateur found them too complicated.

A disadvantage universally complained of was the production of stained whites, especially when toning green; another one, the apparatus necessary to carry out operations; and last but not least the difficulty of obtaining the chemicals necessary for the process.

Varitone Tablets, marketed by Schering & Glatz, enable any amateur, no matter how limited his experience may be, to produce green, blue, brown, or red tones of brilliancy and warmth, which enhance the quality of any gaslight or bromide print thus treated.

The directions for use are sent to any one upon request, and it will readily be seen therefrom that failure is absolutely excluded.

* * *

THE vacation season being at its height, it is probably time to say a few words relating to the season's business in photographic lines.

The C. P. Goerz American Optical Co. report a very satisfactory and encouraging sale of their high-grade anastigmats and cameras. The volume of business handled by them this summer far exceeds that of the same period in the past few years and they look forward to a corresponding heavy demand for their goods during the coming fall and winter months.

Notwithstanding the increased volume of business the firm has arranged that all of their employees receive the customary vacation with full pay, because the management feels that all the employees, the clerical as well as the factory staff, all who have helped to a successful result, should have a chance for enjoyment and recreation.

At the present time the optical department is away, and upon the return of this force the mechanical department will lay their tools aside to sojourn to green hills and shady nooks or to the seashore, wherever their inclination draws them.

Between times the clerical and supervising staff run off on a hunt for recreation, as it of course will not be possible to close the office for any length of time.

* * *

IMPROVED IMPERIAL PLATES. — The well-known excellent quality of the Imperial plates introduced through G. Gennert, is sufficient to warrant the introduction of another style called the non-filter plate; that is, a plate which is instantaneously sensitive to all the colors, without the interposition between the lens and the plate of a chromatic color filter, and is said to reproduce perfectly all the color values found in autumnal foliage. The plate has the speed of 225 H. & D. standard.

For some time there has been a demand among professional photographers for a sepia spotting pencil, and heretofore there has been nothing on the market that would supply this want.

The Century Camera Division, Eastman Kodak Co., have just introduced the Century Sepia Spotting Pencil, which is exactly what has been required along this line. These pencils may be obtained from dealers at 10 cents each, or $1.20 per dozen.

* * *

We have been advised that Mr. H. Oliver Bodine, manager of the Photo Crafts Shops of Racine, Wis., will leave for an extended Eastern trip.

Mr. Bodine will spend a week in Rochester, N. Y., and will thoroughly study the manufacture of kodaks, cameras, films, plates, and papers from the bottom up.

On the 28th of September he will deliver an illustrated lecture before a body of two thousand men, comprising the owners of the various drug stores throughout the United States and Canada who compose the United Drug Company of Boston, Mass. His talk will be along the lines of running a photo supply department, and will also touch on the possibilities of pictorial photography.

Mr. Bodine has pushed the mail-order branch of his business all over the United States, Canada, Mexico, and even into the foreign countries across the water. It is making Racine a prominent spot among the photographers of the country.

Those who are able to take the opportunity of visiting the workshops of the Photo Crafts Shops which are located at the corner of Fifth and Monument Square should avail themselves of the privilege, and see what a wonderful business has been developed in Racine which promises to become one of the leading industries.

The ROUND WORLD EXCHANGE CLUB

In response to the notice in the editorial pages of our August and September issues, a number of amateurs have expressed the desire to join an exchange club, and this will accordingly be formed. Application blanks are now in the course of preparation and all interested may obtain them on request. The purpose of the club is to enable its members to compare their work with that of others, to collect pictures of regions and objects not personally accessible to them, and to benefit by the experience of other earnest workers. Membership carries not only privileges but also obligations. Every member is at liberty to propose an exchange to any other accompanied by one or more samples of his work, but not to send a second lot unless the exchange is accepted. The member accepting an exchange is bound to make prompt return of his own prints or those accepted.

The following rules are proposed, but may be slightly modified. Criticism or suggestions will be welcome.

Rules

Any photographer, amateur or professional, may become a member by signing an application blank and agreeing to abide by the rules. Upon acceptance of his or her application, a copy of the exchange code will be furnished and a membership number assigned.

Any member may propose exchange of prints to any other member, giving his membership number and using the code. He shall send not more than three sample prints with a *stamped and addressed* envelope large enough for their return (if both members live in the same country). In requesting exchange with a member living in a foreign country, an addressed envelope must be sent, and sufficient money for return postage in international reply coupons. These cost six cents each, are obtainable in most Postal Union countries, and are redeemable in postage stamps at any post-office of the countries which issue them.

The member addressed must accept or refuse the proposition for exchange promptly (within ten days at the outside). If refused, sample prints must be returned. If accepted, an equivalent number of prints must be sent, and details for further exchange may be mutually adjusted by code correspondence.

Membership number must be given in every letter, and unless it is given the communication may be disregarded.

Failure to make prompt returns or satisfactory explanation may and will be punished by expulsion in the discretion of the director.

A member not satisfied with the prints sent him in exchange may return them and demand others or the return of his own.

Every member is free to refuse any or all prints offered in exchange, without giving offense. As the object of the club is mutual satisfaction, no member should feel obliged to accept prints for which he does not care.

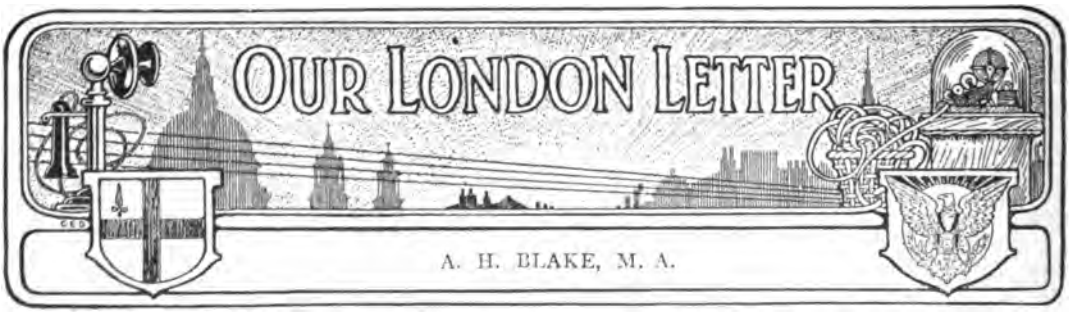
Prints must be sent under cover and carefully packed. Postage must be included beyond name, address, membership number and title. As double postage due is charged in foreign countries, this rule must be carefully observed.

Photographic post-cards may be exchanged by special agreement. A proposition to exchange may be made on such a post-card, and the member addressed is not bound to reply or return the card, if he does not care to exchange.

Violations of the rules will be punished by expulsion at the discretion of the director.

The following applications for membership have been received. If you desire to join, send in your name for an application blank. Owing to the absence of the director in Europe during August and September, the first exchange list will not be published until the November number.

1. F. R. Fraprie, Director, 221 Columbus Avenue, Boston, Mass.
2. W. F. Jungles, 2104 Thomas Street, Ft. Wayne, Ind.
3. **Charles W. Weir, 209 Vatet Block, Muncie, Ind.**
4. **E. Herbert Dingley, Farmington, Me.**
5. **Clarence A. Shedd, 224 W. 21st Street, New York, N. Y.**
6. **Simon Rosenfelder, Jr., 611 S. Marshfield Avenue, Chicago, Ill.**
7. **S. A. Smith, 141, 143 E. Princess Street, York, Pa.**
8. **Bert Sargent, Abrams, Wis.**
9. **P. Lalonde, 815 St. Denis Street, Montreal, Que., Can.**
10. **Edward Graf, 165 Sheridan Avenue, Paterson. N. J.**
11. **Thos. Bradt, Orwell, Ont., Can.**
12. **T. E. Harper, Corning, Cal.**
13. **W. D. Lundstrum, Lewiston, Idaho.**
14. **Richard Pertuch, 2136 N. Natrona Street, Philadelphia, Pa.**
15. Floyd O. Brown, 407 North "C" Street, Indianola, Iowa.
16. Chas. G. Jones, Box 67, Harrison, Ark.
17. C. B. Bolles, L Box 351, Aberdeen, S. D.
18. W. M. Horton, Alvord, Texas.
19. Kenneth B. Norton, 898 Bryden Road, Columbus, Ohio.
20. George W. Sotheard, 43 Summit Avenue, Salem, Mass.
21. J. B. Oheim, P. O. Drawer M, Henrietta, Texas.
22. John Tite, Box 182, Port Cobalt, Ont., Can.
23. John Shahan, Attalla, Ala.
24. A. E. Angier, 1201 N. Jefferson Avenue, Peoria, Ill.
25. Elliott S. Blakely, 86½ Union Street, Lynn, Mass.
26. Earl H. Ressegina, R. F. D., 2, Custer, Mich.



OUR LONDON LETTER

A. H. BLAKE, M. A.

We have had the pleasure of welcoming two well-known photographers from your side during the past few weeks, and though we did not see as much of them as we should have liked, since they had so much to include in their visit, it was a great pleasure to meet them. Snowden Ward says you have a habit of calling on a Friday to see us over here, and when we say, "What can we do? Who would you like to meet? Can you lunch with me to-morrow?" you reply, "I sail by to-morrow's boat." Well, as to our visitors. First came Mortimer Lamb from Canada, whose work must be well known from reproductions even if he does not send in to American exhibitions. He is a pictorial worker of the first order, and has sent us pictures which from the subtility of their composition, their effect and their emotional appeal live in the memory. I especially think of his picture "The Artist" which we had in the last Salon. It is a delightful work, full of imagination and appeal to the decorative faculty. He has left behind him some excellent pictures for the selection committee of the London Salon of Photography. I should like to point out that pictorial photography owes a debt of gratitude to Mortimer Lamb for the courageous way in which he has almost single handed helped on the higher ideals in this matter. It is an extraordinary thing, but nevertheless true that there is little or no evidence of the spread of these ideals in Canada; there are just one or two men at most whose names are known to us. Let us hope that in Canada, as in England, there are workers of high aim and skilful hand whose pictures never reach exhibitions and never find their way into the reproduction list of the photographic paper. At any rate, as far as we can see Lamb stands almost alone, without flagging or discouragement, for the higher aims of pictorial photography.

Our other visitor was Austin Lidbury, the active member of the Photo-Pictorialists of Buffalo. He is a big, breezy, cheery personality, and brought the life and vitality of a great new continent into our effete London life. The worst of Lidbury was that he had so much to do and so many to see that one only got a few glimpses of him. He was enamoured of our river, and has got together some excellent atmospheric negatives of the shipping and the Tower Bridge with that wheezy old R. R. lens of his. Possibly by and by he will be competing with us on our own ground with Thames pictures. We were able to make both of these visitors members of our new Camera Club.

The Fifty-fifth Annual Exhibition of the R. P. S. has opened its doors, and is certainly equal to if not better than any of its predecessors. I am not prepared to say that it is better than last year, my private opinion being that it is not quite so good; but bar last year, it is certainly the high-water mark. It is not characterized by any outstanding picture, does not introduce any new printing medium, or make many departures in subject or treatment, but is quiet, reasonable, and steady in its advance and in its appeal. There is no picture of the year, no new star above the horizon, but I believe that its salient characteristic as an exhibition will be the excellent work, varied in character, which it showed from men who had already made their reputations. I should like to mention the work of E. T. Holding, Arthur Marshall, and F. J. Mortimer as being new in subject and very high in quality. Holding starts an entirely new line with complete success. Marshall, leaving the multiple oils of the last few years, has in his "Palladian Bridge" a subject new to photography and massive and imposing in character. Mortimer, leaving the sea, his old love, in its aspect only where it breaks upon the shore, gives us strong and decorative harbor scenes, and above all the wild tumultuous waves of the open sea as taken by him in perhaps the roughest bit of water round our troubled seas. He calls the picture "Britannia's Realm," and I am sure the title will give no offense in America. Mrs. Barton is another strong worker who not only holds her own but gives us in her "Romance of the Rose" one of the best of modern pictures. American exhibits are in fair proportion, though I understand that the main of them are still on the Atlantic, in which case I shall have the pleasure of meeting them at the Salon instead of the Royal.

Jeannie E. Bennett of Baltimore has four pictures hung: "A Nocturne," "A Daughter of the Soil," "Supplication," and "Slumber." They are all clever, distinct in conception, and painter-like in treatment. It is quite exceptional work. Louis Fleckstein of Los Angeles shows "In the Arroyo Hills," but nothing to equal his last year's work. Alice Boughton of New York City sends a strong and vigorous presentment of Maxim Gorky. The treatment of the subject is most suitable, and the power and concentration of purpose in the man well expressed. Aram Kraft has a picture called "Waiting for a Bite." The title gives no idea of the character of the subject and sounds common-place enough, but the treatment is distinguished and the suppression of focus admirable. Mr. F. C. Clarke of Springfield, Mass., has in "The Fish Bowl" a subject which, if somewhat slight in itself, is yet delicate, full of tone, and well arranged.

Looking at the exhibition as a whole one may say that it is not equal to the one held last year, on account of the absence of that large quantity of purely decorative work which promised so highly for the future of English pictorial photography.

The output is not maintained this year. So if we put last year out of court as being exceptional on that account, certainly the Fifty-fifth Exhibition is the finest yet held; and it shows that the progress of pictorial photography here, if slow, is gradually and continuously forward. I for one am full of confidence in the future which lies before it.

I should like to say a word before it is too late about the Japan-British collection of pictorial photography. I have described it, I believe, in this letter; but since I wrote various opinions have reached me both from Englishmen and others who have seen it, expressing the opinion that it is the finest show of English work that until now has been got together. It represents the pick of some half a dozen Royals and Salons, and is all high grade. It seems a pity that such a collection should be at once dispersed; and as the St. Louis Collection visited various places here on its return from you, why should not this collection be seen in some of the principal American cities? I cannot say whether the exhibitors would agree, but if some enterprising American will agree to do the organizing and free the exhibitors from any expense in the matter, I will see whether it could be compassed.

We are passing through certain changes over here in manner of presenting the print at exhibition. Of course the old heavy wooden mount with close framing is almost obsolete, except for a certain class of subject for which I suppose it will always be considered suitable. In the Royal Exhibition about one sixth of the space only is occupied by this kind of framing, despite the fact that the Royal has been considered the last stronghold of the heavy frame. But it is the battle between the passe-partout and the narrow molded frame that we are settling. A year or two ago the passe-partout was well ahead; this year, without counting, I should say that they were about equal, and I predict that the victory will fall to the light frame on account of the deplorable amount of breakage that befalls the passe-partout on account of the lack of support to the glass. It has even been mooted here that the secretaries of societies should bar the passe-partout on account of the trouble and cost entailed in making them ready after a journey for the exhibition and the indignant letters from the owners of the fractured articles when they are received back after the show.

It is rather the dead season with us over here just now. London is supposed to be "empty" because a few thousand of its well-to-do citizens are by the sea or on the moor: but what of the teeming millions of the holiday-less who remain behind! I suppose, however, that both in London and elsewhere the photographer is more busy in wasting plates (or otherwise) than in doing or saying things which I can record for your benefit in this letter.

PRACTICAL HINTS

Original short articles and discoveries are desired for this department, and $1 each will be paid for such as are accepted and published.

Solar Printing. — In answer to a query, we may say that we are not acquainted with any work dealing specially with "Solar Printing." The following instructions will enable you to succeed. Take —

Serum of milk........................	5 ounces
Iodide of potassium....................	50 grains
Bromide of potassium..................	25 grains

When dissolved, filter through a tuft of matted absorbent cotton. Take a sheet of any good plain photographic paper, swab the surface with this salting solution, prepare a number of sheets, dry them (they will keep in good condition for a long time). Sensitize with the following by swabbing (this operation must be carried on in the dark room): —

Nitrate of silver.......................	140 grains
Distilled water.........................	4 ounces
Glacial acetic acid.....................	4 drams

Lay the salted paper back down upon a sheet of glass, and very carefully wipe or swab the surface with the silver solution. Expose, while wet, in the enlarging apparatus. As soon as a faint outline is seen, remove the paper, pour over the surface the following developer: —

Protosulphate of iron....................	1 ounce
Distilled water...........................	20 ounces
Glacial acetic acid.......................	1½ ounces

As soon as the print develops well out, wash the print in running water and fix in the following solution: —

Common water..........................	40 ounces
Hyposulphite of soda....................	8 ounces
Chloride of gold.........................	5 grains

Fixing will require from five to ten minutes. Wash well for half an hour, paste, and mount.

Serum is made by taking 2 quarts of milk, allow to stand for several hours, remove the cream, add 1 ounce acetic acid, No. 8; boil this for one minute, allow to become cold, then filter through absorbent cotton. The clear liquid is the serum required.

* * *

Elimination of Hypo. — Permanganate is the only eliminator I have ever used, as it has given me perfect results from the first.

I think my way of using it is more convenient than that given by F. R. P. S. in June. I make a stock solution by adding about 3 ounces of water to a small pinch (less than 5 grains) placed in a 3-ounce bottle. This makes a very dark purple solution, of which 3 or 4 drops are added to a tray of water. After rinsing the prints under the tap for about one minute I put them into this tray and change as soon as the color changes to yellow. Between each change the prints are rinsed under the tap; about five changes of two minutes each will wash one dozen 4 x 5 prints.

For negatives I use a regular zinc washer with funnel inlet, and hole in the side for outlet. Into the funnel I pour a little of the permanganate solution and turn on the water, and in a few seconds the solution is acting on every plate in the box. I put a 4-ounce graduate under the outlet holes and can tell by looking at that when the color has changed.

As soon as the water in the box gets clear I add more permanganate, and repeat until all hypo is killed. This method will wash twelve 4 x 5 plates in about fifteen minutes. — HENRY C. SHAW.

* * *

A PAPER STORAGE BOX. — For one who has occasion to do much printing, either by natural or artificial light, some sort of a box to hold the sensitized paper both before and after exposure is a great necessity. In my own case several plans have been tried, all of which have finally been discarded for the simple arrangement which I will describe.

The largest direct prints I make are 8 x 10 inches, so I made the box to accommodate that size, making it 11½ inches wide, 17½ inches long, and 3 inches deep, inside measurements. This length allows two piles of 8 x 10 inch paper to be laid in the bottom, with sufficient space between to avoid all danger of getting the piles mixed.

The box is made of ¾ inch pine, some old packing boxes being used, an occasional knot doing no harm. The lid is made of the same material, and is attached to the box with two brass hinges set at the end. I hinged the lid in this way, as the box was intended to stand across one end of my developing table and be opened from the front.

The end of the lid opposite the hinges projects over the end of the box about ½ inch, so that it is easily lifted with the finger tip or knuckle, if the finger happens to be wet.

The under side of the cover is fitted with a rim or ledge made of ½ inch stuff. There are three strips or cleats, 1 inch wide, running across the grain of the lid, to stiffen it at the ends and middle, but the side strips are only ½ inch wide. All are attached to the cover with glue and short screws, forming a light-break or safety joint, which keeps all light away from the paper while the cover is closed.

The inside of the box is painted with a mixture of shellac and lampblack, while the outside is stained brown and shellacked.

With this arrangement, when beginning to print, a package of paper is opened and laid in the near or front end of the box, and the exposed sheets are laid in the far end until one wishes to develop them.

For post-card printing a somewhat smaller box would be more convenient, though the size mentioned is very good for paper storage, even if not used for printing purposes. It has proved a great convenience and has saved me a great deal of time, so I pass it along for the benefit of other readers of this magazine. — C. M. WHITNEY.

* * *

TO GRADUATES FROM THE KINDERGARTEN CLASS. — When an amateur first gets the camera fever, he reads the glowing descriptions in the maker's catalogue, buys a more or less pretty affair, goes out and takes a few snap-shots, has them developed and printed perhaps by some *attaché* of a stock house — and feels, poor man! that he has mastered the whole subject. Sometimes he "has good luck," and other times not. But it is purely a question, in his mind, of "luck." The focus is wrong, but that is mere luck. The exposure is wrong, but that, too, is luck. Some of the negatives are blanks and others are double, but all that is luck. There are double outlines, or the picture is of the soot-and-whitewash order, but he simply had "bad luck" with the picture. There are green stains on the print or light patches on the negative — luck only. The camera is at fault, the paper is bad, or the chemicals are wrong. Perhaps?

At the end of, say, six months a sort of sickening doubt begins to creep over the amateur's soul. He then does one of two things: he either gives up photography entirely or he sits down and begins to think and reason. In the latter case he comes to the very salutary conclusion that really and truly he does not "know it all," and that there are still many things to learn about photography which he overlooked in the first blush of enthusiasm. Humility, in photography as elsewhere, is the beginning of wisdom. Assuming that the amateur is in a state of honest doubt and in a receptive mood, a few hints are offered for his careful consideration, as indispensable preliminaries for success in any sort of photography.

The first thing to do is to take the camera in hand and study it attentively. Never mind the brass or nickel finishing, nor the seal leather covering. Try to conceive that the camera is simply a machine by which light reflected from objects outside the camera is allowed to make an impression on a sensitive emulsion inside the camera. That is all there really is to the camera. Light is admitted through an opening in front of the plate or film and the actinic power of the light acts on the chemicals in the emulsion and makes a negative, — that is, white objects appear in the negative as black, and *vice versa*. A lens is not necessary, neither is a bellows. Excellent pictures have been taken with a "pinhole," and all cameras do not have bellows. The latter are simply for convenience in adjusting the focus; to be drawn out or pushed back as the needs of the particular lens require. In capable hands an excellent picture can be taken with a sensitive plate or film in a cigar box with a pinhole for a lens. Perhaps the most essential thing to remember in the beginning is that a camera is designed to exclude all light from the emulsion, except when wanted. Consequently the first thing is to study the camera and see that it does not leak light. If it does, it is useless until repaired. There are three places where a camera may leak light: through the shutter, through the bellows, and through the back where the plate or film is inserted. The bellows may be temporarily mended with a piece of black court plaster applied on the inside. The other two leaks need skilled attention. The function of a camera being primarily to exclude light not wanted, a leaking camera is a failure from the very start.

In regard to emulsions, the proper thing to bear in mind is that they differ greatly in speed, — that is to say, if a tenth of a second is the proper speed for one plate, another emulsion under precisely the same circumstances might require one twenty-fifth or one half second — depending on the speed of the plate or film. Watkins, Wynne, and Burroughs-Wellcome each publish reliable lists of emulsion speeds which the amateur should know before using a plate.

In regard to shutters, it would be well to beware of the cheap variety, if one wants to do accurate work. By rights, all shutters ought to be tested. Some enterprising photographer, who knows enough, ought to make a few honest dollars testing shutters in this country. Some unpleasant surprises are in store for confiding amateurs when shutters are accurately tested. The writer has in mind a shutter fondly supposed to be accurate, which turned out to be strangely inadequate. The second and a half second proved to be the same. The fifth and tenth did not vary appreciably. The twenty-fifth, fiftieth, and hundredth were all the same. In buying a shutter it would be an excellent plan to insist that the maker guarantee certain speeds; if the speed marked one fiftieth is really one fortieth, that makes no particular difference, provided you know what the different "indicated speeds" really are. Like a human being, a shutter that is a constant and systematic liar is not necessarily dangerous, provided you have due warning and can make suitable allowances.

In buying a lens, the amateur is strongly advised not to take the word of a twelve-dollar-a-week clerk for it. He will save himself much money and mortification by spending 50 cents first and buying *Photo-Miniature*, Nos. 76 and 79, entitled "The Hand Camera" and "The Choice and Use of Photographic Lenses." If he has a dollar to spend and is interested in the subject, he should get of the same series: "Hand Camera Work" (No. 107), "Photography with Small Cameras" (No. 97), "Correct Exposure" (No. 105), and "Vacation Photography" (No. 62). For practical information, Watkins' Manual and Burroughs, Wellcome & Co.'s "Photographic Exposure Record and Diary" are commended without reserve. The latter cost about 50 cents apiece, and are very valuable. Bayley's "Complete Photographer" covers the whole field of photography, costs $3.50, and is about the last thing said in photography.

After reading one or more of the above books, the amateur may consider he has graduated from the kindergarten class in photography. He will probably use fewer films and make better pictures. Failures will not be attributed to "luck." He will no longer think and speak of the U. S. system, but rather the F system. That is a sort of shibboleth by which one can gage an amateur's photographic intelligence. The U(niform) S(ystem) was recommended about a quarter of a century ago by the Royal Photographic Society of England. The scheme was greeted with derision and the society withdrew its recommendation, as no considerable body of English photographers paid any attention to it except to laugh at it. The persistence in this country of the antiquated and discredited Uniform System is one of the marvels of photography in the present day and generation.

The amateur, if he is one of the kind who is not content with the you-press-the-button-we-do-the-rest style of the art, is advised to read several photographic magazines regularly, and also, if possible, to join a local camera club. There really are some things that cannot be easily learned from books. — E. L. C. MORSE.

* * *

A DEVELOPING PAPER HINT. — The amidol "fiend" may be interested in a process for avoiding greenish prints that I happened to find out or re-discover, as the case may be. Dip your dry paper, after exposure for a few seconds in a solution, say five per cent, of *fresh* sulphite, which will convert all the silver salts of the emulsion into silver sulphite, and the resulting soda bromide will dissolve out. Now let your paper drip a second, and immerse in a small quantity of regular amidol developer — the resulting print may perchance be slightly softer than usual; of course a small addition of ten per cent, or better, five per cent, bromide will remedy this. All prints subsequently developed in the same developer will be of the same quality, as each piece of paper will have left practically all soda bromide in the separate sulphite solution.

If the sulphite solution, however, is not *strictly fresh*, chances are part of the image will be converted into silver sulphate and that will be the end of it. Even diluting a saturated solution kept in a bottle full to the neck is likely to give trouble.

Other advantages of this process are the slight chance of uneven development, as the paper is wet when put in the developer, and the possibility of using a ridiculously small quantity of developer for several prints; the economy for large prints can be emphasized by developing with a tuft of cotton or, better, with a print roller covered with cloth.

Finally, I would like to advise the use of edinol in this formula, published by Malcolm Dean Miller last year:—

A. Nine grains edinol for each ounce of ten per cent sulphite solution.

B. Ten per cent carbonate of soda.

Use 1 ounce of A, 2 ounces of B, 3 parts of water, and 1–2–3–4–5–10–20 drops of bromide, according to your fancy, — it doesn't cut any figure; expose just long enough, and take your time in developing, — take all your time and ease.

Then you will probably use amidol only for plates, and nothing but edinol for papers, as I do. If you are now a straight amidol "fiend" you probably won't be able to break the habit — when you want to develop an occasional snap-shot — of taking a pinch of powder from a bottle, three to five pinches out of the sulphite can, a quarter of a glass of water, smiling all the time at the fellow who keeps a regular soda fountain in his dark room. — ARNOLD H. ROMWALD.

* * *

ENLARGING BY TUNGSTEN ELECTRIC LAMPS.—How to make enlargements at home has bothered me just as it has bothered other workers of the dark room. I have made hundreds in the bromide room in the store of a friend who sells everything to and does everything for amateurs. But I had an arc light for making exposures. Some of my friends had tried enlarging with some of the fixed focus and fixed size boxes, using electric light for illumination, but they reported it required half an hour for each exposure. That did not sound good to me. I also hated to go down town every night when I had a few enlargements to make. It often was very late before I could get the prints out of the wash water and on the drying racks so I could get started for home. I thought about home enlarging for months. I was no nearer the goal. I could not see where I could get enough prints to show for a whole evening's work. The long exposure was against it.

The light question was my stumbling-block. I did not do enough enlarging to warrant an arc lamp. A 16 or 32 candle-power bulb seemed too slow, after what my friends had told me. I did not want to try daylight work, for my office hours are such that Sunday, the only free day, is my time for making camera trips. At last I determined to try for myself and see if my fixed-focus box-enlarging friends were correct about the length of time required. My dark room is in the basement. It adjoins the laundry and once was known as a fruit closet. It is about 8 feet square and is light tight. In the laundry are water, gas, a gas plate, and a table, all of which makes it very convenient.

* * *

I cut an opening in the wall of the dark room, put up a shelf at the right height for the camera, and after covering the opening with oiled paper to diffuse the light, started with a 32 candle-power lamp just to see what I could do. The lens used was a Tessar Ic. Enlarging about three diameters, my lamp required about five minutes' exposure for bromide, which I felt was too long. My output was too limited for one evening.

Next I purchased a tungsten lamp, 150 candle-power, that would fit the socket of an ordinary lamp. It gave me light enough to secure fully timed prints in less than half the time I had devoted. This cutting down of exposure time meant I could turn out a greater number of prints in a given time, and while it is not as fast as the arc light to which I had been accustomed, it is perfectly satisfactory. It allows me to do at home the work for which formerly I had to go down town, and while I wait for prints to wash I may read or do other things around the dark room or the house. where the equipment is my own and not that of a friend in the business.

In addition to the bromide work, the tungsten lamp is excellent for exposing slow contact papers. I remember well my first experiment with Artura carbon green. The directions advised about twenty seconds by diffused daylight. I gave six minutes by gas — and got just enough to let me know the paper had something on it. I turned to the tungsten and in thirty seconds got a fully timed print. The tungsten always will be a part of my dark room outfit. I need it. Tungsten lamps or the Mazda brand of the General Electric Company, about the same thing, cost more than ordinary bulbs. The 100 candle-power lamps sell at $1 and the 150 at $1.50. The lamps are made in larger sizes, there being one with 250 candle power, but it costs $2.50. The filaments are very fragile, and unless the lamps are used either hanging straight down or inverted, they do not give as good results and in addition the filament is extremely liable to be broken. — H. M. LONG.

* * *

A POSTAL PRINTING FRAME. — The photographer who undertakes to build up a large bank account by the manufacture and sale of post-cards needs every assistance that can be obtained, and even then the chances are considerably against his becoming a "bloated bondholder." However, anything that lightens the drudgery of getting out large quantities of cards is worthy of consideration, and so I offer for the attention of AMERICAN PHOTOGRAPHY readers the printing frame that I have used for two years with much satisfaction.

I took as the basis of this frame an ordinary cheap printing frame, "post-card size," so called, measuring 3¾ x 6 inches inside. It was very poorly made, so the first move was to pull it apart, smooth it up, and put it together again, glueing and nailing each corner. Then the ends, which were lower than the sides, were filled up even with the sides with strips of wood glued and nailed in place. The corners were rounded a trifle, and the edges beveled off, for I find that a frame with rounded corners and edges is much pleasanter to handle and actually seems to enable one to work more rapidly.

The rebate was carefully trued up and smoothed, and a piece of glass cut to fit rather tightly in it, so that it would not slip about or fall out if the frame was carelessly handled.

The back was the next consideration. A bit of well-seasoned pine, ⅜ inch thick, with the grain running the long way, was cut to fit closely into the back of the frame. The edges were not planed square, but were beveled very slightly, so that the inner face was slightly smaller than the outer or back side.

Great care was taken to get the inner face of this back perfectly true and flat, so as to give an even pressure on the plate and card.

The spring hinges were made from thin spring brass, about ½ inch wide. A pair of ¾ inch brass hinges was procured, and strips of the ½ inch wide brass about 2½ inches long were riveted and soldered to one leaf of each hinge, while to the other leaf a strip about 1 inch long was similarly fixed. A small drill stock, heavy shears or snips, and soldering tools are, of course, necessary for this work, but it is not at all difficult. Two screw holes were drilled in each 1-inch strip, and they were screwed to the end of the frame with small, flat-head brass screws, so as to allow the hinge to project above the back of the frame about ⅜ of an inch. One hole was drilled in the extreme end of each 2½-inch strip, and after the bends had been put in each, they were screwed to the back. A study of the cut will show how they should be bent and attached to the back.

The catch or clip at the end opposite the hinges was also made of ½-inch wide brass, bent as shown in the cut, and fastened to the back with two small screws. The bent-over end has a small hole drilled in it, which snaps over a headless pin (a small wire nail) driven into the end of the frame.

The adjusting and screwing on of hinges and clip should be done with a negative in place, and the springs should be so bent and adjusted as to give an even and uniform pressure at all points of the back. The under side of the back is lined with heavy black felt, glued on.

Most of my post-card work is done with 3¼ x 4¼-inch plates, and to hold these in place I use a sort of pasteboard kit, cut so as to fit the rebate snugly, while in one corner is cut a 3¼ x 4¼-inch opening. Over this opening is pasted a piece of black paper, in which, concentric with the opening in the cardboard, is cut a 3 x 4-inch opening.

The frame is used as follows: First the glass is put in place, then the kit, its opening in the lower corner nearest the hinge end of the frame. A negative is laid in the opening, film side up, and a postal over this film side down. The opening in the kit is so located that when the card is pressed against the side and end of the frame an equal margin is obtained at top, bottom, and end of the card. A little measuring will show the proper location for the opening in the kit.

When the back is pressed down and snapped into place, it tends to crowd the card against the end of the frame and thus hold it in position, whereas if the opening were at the other end of the frame, the action of the back would be to push the card out of place when being closed.

After exposing the card, the back is unlocked with one finger, the back swung up to a vertical position, which it will hold if the hinges are a trifle stiff in working, the card is removed and a new one inserted, and the back closed with a single pressure of the hand.

The use of this piece of apparatus cuts down the time spent in manipulating the frame fully one half, if not more, — and as its construction is very simple, it seems to me worthy of trial. — C. M. WHITNEY.

* * *

CONVENIENCE IN TINTED BORDER PRINTING. — The printing of negatives on larger sizes of double-weight paper, printing in a tinted border and plate-marking the whole, is one of the neatest and most artistic of the simpler methods. The difficulty in this method is in the use of developing papers, where perfect register of the various masks must be secured by "dead reckoning" and with the image invisible. This difficulty may be overcome in two ways, the first consisting in mounting the masks accurately upon glass the full size of the paper to be used. The first mask (the one through which the negative is printed) should be mounted on one piece of glass; the second mask and the cut-out from the first mask on another sheet. By laying the glasses over each other with their edges in register, accuracy in mounting may be secured. In printing it is necessary to see that the glasses are closely fitted into the rebate in the same corner of the printing frame.

The second method has the advantage of giving the print with a border in one or more tints at the one printing. In this method a vignetting negative is made as follows: On a piece of black paper or cloth of sufficient size is laid off a rectangle a trifle smaller than the negative from which the print is to be made; around this are pasted borders of one or more tints of gray. This is then photographed full size and developed until the center rectangle shows as clear glass. This negative is then used as a mask through which the landscape or other negative is printed. — A. E. SWOYER.

* * *

A SUBSTANTIAL RETOUCHING STAND. — Most amateurs are dependent to a certain extent on the pencil and the etching knife. The beginner's efforts *need* retouching, and the expert's compositions must have hand work to aid and abet the effects of nature. Yet with all of the retouching that has been done and that is being done, the worker outside of the studio either holds his negative against the window pane with one hand and jabs at it with a pencil held in the other, or else he invests in one of the folding stands now on the market. Some of these stands may be well behaved; mine is possessed! It folds when I am working on a negative and my knife scores a gouge out of the landscape; the shield prods me in the eye or drops and raps me on the knuckles; the whole outfit cramps my hand and provides no rest for my elbow, so that I am uncertain whether I am about to spot out a pinhole or add a touch of "local color" in an unexpected place. In despair I resolved to make a stand that would at least be roomy and stable; I did so and pass on my results.

Make a small table out of half-inch plank with "two by fours" for legs; in the top cut a hole some inches larger than any negative that you expect to retouch, and fit over it a piece of glass, — ground glass preferred, but plain will do. On one side of the table nail a piece of thin wood high enough to serve as a light shield, and stretch a piece of white material underneath the table at an angle of 45 degrees with the top, and sloping towards the light source.

Placed facing a window this outfit provides a rigid stand upon which one may work with accuracy and comfort. — A. E. SWOYER.

* * *

REPAIRING BELLOWS. — I recently acquired a 5 x 7 hand camera (of good make, but second hand), and promptly found that the bellows was full of pinholes. I was nonplussed at first, not knowing just how to proceed to remedy the difficulty. I finally took some rubber cement (made by myself from pure Para rubber and benzine—not benzole). To 2 parts of the cement I added 1 part of asphalt varnish and (as it was too thick) thinned the compound with benzine. It was only necessary to give the inside of the bellows one coat to close all the pinholes. The advantage of this varnish is its pliability. The bellows seems stronger and better for the application. — M. H. FARMER.

RECENT PATENTS.

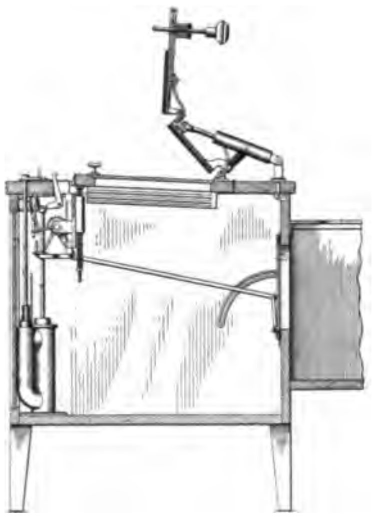
Abstracted by F. C. Beach. Copies of any of these patents may be obtained at 10 cents each from Munn & Co., Patent Solicitors, 361 Broadway, New York City.

August 9, 1910.

966,498. AUTOMATICALLY OPERATING VARIABLE TIME EXPOSURE PHOTO PRINTING CABINET. JAMES F. WARE, Denver, Col.

The invention is an improvement on a previous patent. The cabinet is a square-shaped box supported on legs, and has an exposing aperture at its right side kept closed except at the time an exposure is made, by a hinged shutter which opens inward on a hinge; to the latter is secured a crank or arm which is attached by a rod running across the interior of the cabinet to another operative crank having on its axis a semi-circular gear which meshes with a vertically movable toothed rack. The shutter at the right side of the box has a guide pin which works in the circular grooved guide. A hinged frame at the top of the cabinet holds the negative. Rising upward and forward from the rear of the frame is one half of the printing frame back and hinged to that is the upper half, having a spring to hold it back at an angle and a movable spring-operated knob whose rod or spindle in being forced downward in the act of pressing the back against the paper lying on the surface of the negative, serves to operate or trip the mechanism for regulating the time of opening and closing the light shutter at the right-hand side of the cabinet. The horizontal grooves shown on the underside of the hinged frame represent compartments for inserting different shading sheets to modify the light.

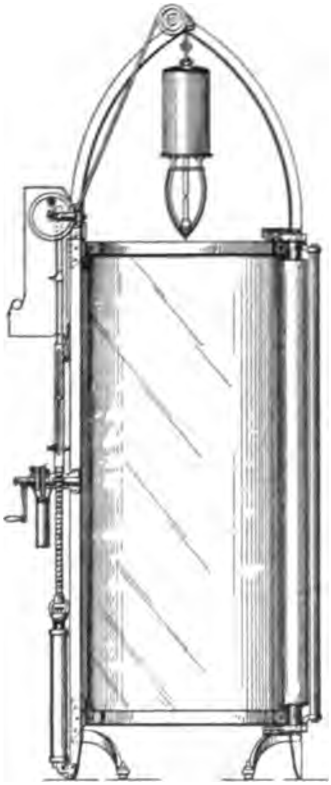
In the lower left corner of the cabinet are two cylinders, connected together at their top and bottom ends, which are filled with liquid. The larger one contains a vertically moving piston whose rod passes upward to the top of the cabinet and has on it projecting lateral pins. The other cylinder has a regulating rod connected at the top by a small crank. The rod is attached to a valve on the bottom.



interior for regulating the speed of the flow of the liquid from one cylinder to the other. When a print is to be made the sheet of paper is placed over the negative, then the hinged back is carried down in contact therewith and held locked by a pivoted hook crank latch, shown at the upper left corner. Then the knob on the back cover is pressed downward, which in turn through its attached rod forces down the tooth rack. This rotates the crank gear which moves the shutter crank arm forward, and opens the shutter for exposure. At the same time the piston rod attached to the weighted piston in the main cylinder moves downward at a speed ratio for the desired exposure and trips a pin which releases a latch and allows the shutter to close at the determined period of the exposure. A small aperture in the weighted piston allows a certain portion of the liquid in the cylinder to pass through it as the piston moves in either direction.

August 2, 1910.

966,016. BLUE PRINTING APPARATUS. Reinhold Hermson, Crafton, Pa.

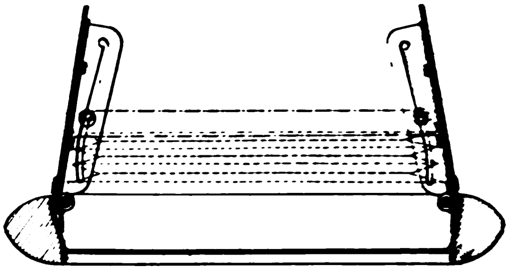


The invention is an improvement on prior patents by this party. The copy to be reproduced is secured around a transparent vertical cylinder over which is held the sensitized blue-print paper. An electric arc light suspended from a pully above is allowed to descend or travel downward through the interior of the cylinder at the proper speed to give the light printing effect on the blue-print paper. Devices for controlling this movement are arranged at one side of the cylinder, as shown.

August 9, 1910.

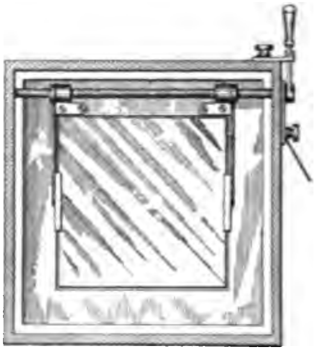
966,886. PHOTOGRAPHIC POCKET-CAMERA. Armand Boreux Basel, Switzerland.

The purpose of the invention is to provide better support for the lens front when it is extended for exposure. A metal frame is set in the body of the camera, to one side of which is rigidly attached the camera bellows. Two hinged doors form the front of the camera, hinged to the metal frame, previously mentioned; these carry on their inner side grooved plates at right angles to the plane of the hinged support.



The lens front has projections which operate in the grooved plates and slide therein when the front is drawn out or pushed in. Thus both ends of the camera lens support are rigidly secured between the two folding parts of the camera. After exposure the front is pushed into the camera body, then the hinged doors are turned in flush with the broad side of the camera, making it a compact pocket instrument. The ends are rounded to facilitate putting the camera in the pocket. The dotted lines represent the camera bellows and the lens support base.

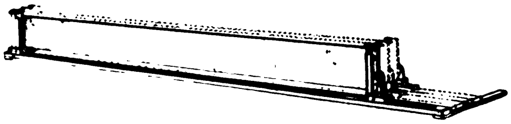
967,025. PHOTOGRAPHIC APPARATUS. John Leonard and William J. Oldaker, Chicago, Ill.



The illustration is a cross-section of a camera, showing a horizontal shaft or rod running through the upper part, with an exterior operating handle on the right end. The shaft is supported in bearings attached, as shown by angular plates, to the rear interior upper part of the camera frame. Secured rigidly to the shaft are two arms projecting at right angles to the shaft, having spring clips on the outer end, intended to clamp between them a subject plate, or a glass plate having on certain portions a positive image.

In operation, the subject plate is first locked in a horizontal position in the top portion of the camera, then the exposure is made in the camera in the usual way, the object photographed being placed in front of a plain black background and the cap is put on the lens. Then the shaft is rotated by the handle until the subject plate takes a vertical position in front of the regular exposed plate. An electric light located near the camera is then turned on and illuminates the subject plate, whose image is transferred as if by contact with the regular plate, producing a background about the first exposure, which appears when sensitive plate is developed.

967,114. PHOTOGRAPHIC DEVELOPING RACK. William H. Depp, Brookville, Pa.

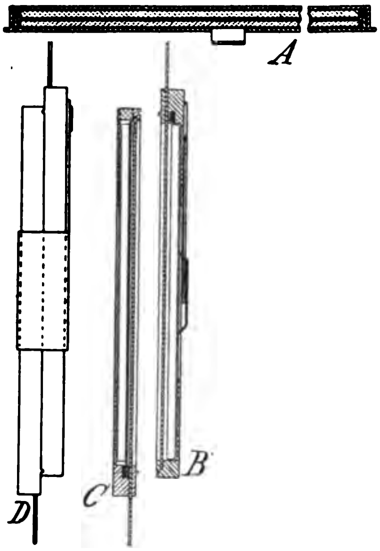


It consists of a group of slotted parallel bars secured to cross pieces at each end, supporting fixed upright clamping bars at one end and adjustable clamping uprights at the other end. The film to be developed is secured at one end to the fixed upright bar by being clamped between it and a hinged upright strip held in contact by a U-shaped staple-like yoke, which is turned down from the fixed upright over the end of the hinged upright. The opposite end of the film is secured in a similar manner to a movable upright bar, which is locked to the slotted base bar by an eccentric clamp at any desired position.

By this construction a group of films of varying lengths can be secured in a taut condition to one base and be developed by the usual tank method.

August 16, 1910.

967,492. PHOTOGRAPHIC APPARATUS. Arthur A. Brooks, Ashton-on-Mersey, England.

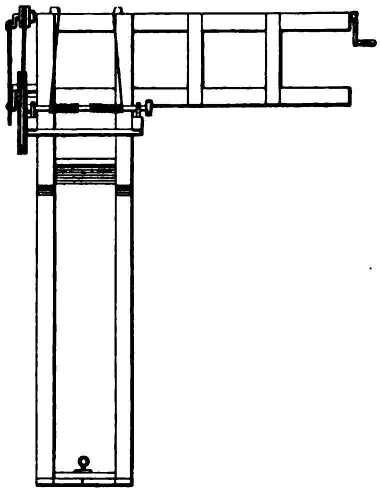


The idea involved in this improvement consists in packing the plates in a special form of sheath in pairs, then inserting the same in a plate holder for exposure in the camera and re-assembling the separate exposed plates in the sheaths to serve the use of changing bags.

Diagram A is a section of the two plates in contact, film side together, enclosed in a light-tight casing, one part of the latter fitting telescopically in the other. This is inserted in a framed opening in the rear of a single plate holder, as in section B; then the other single plate holder C is clamped in contact with B by U-shaped enveloping clasps. The exposure slide is withdrawn in section plate holder B, which allows one plate and its sheath to fall into plate holder C, whose slide is also withdrawn. When thus transferred the slides in B and C are pushed in, the U clamps removed, and each holder is used separately in the camera. After exposure the two plate holders are clamped together and the sheath in plate holder C, with the exposed plate, is transferred to the plate holder B, in light-tight contact with the other portion of the sheath and the whole removed for subsequent development. Diagram D shows an edge view of the two holders locked together with the clamp in the center.

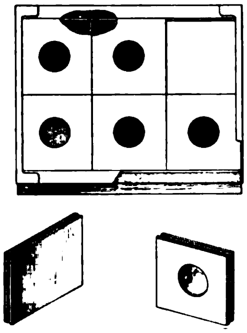
967,511. SLIDE-CARRIER FOR STEREOPTICONS. Mathew A. Goodspeed, Fremont, Neb.

The object of this slide carrier is to provide mechanism to drop the slide from in front of the condenser after exhibition into a collecting receptacle below and thus avoid the employment of an assistant to remove the exhibited slide.



A horizontal carrier with enough end space to carry four slides at a time, is secured to a vertical frame work holding a horizontal vertically movable platen held in place by two cords. When the carrier is put into the lantern, the vertical frame depending below the horizontal carrier is in line with the condenser. In this portion of the carrier at the bottom is a hinged door which supports the slide in the lantern at its lower edge. To make a change the operator simply revolves a crank observed on the right end of the carrier which, through suitable pulleys and cords and cranks on the left causes the hinged door to assume a vertical position and allow the slide to drop edgewise upon a receiving self-adjusting platform below. The slide support then assumes a horizontal position ready for the operator to push in another slide for projection, after which the operation of changing is repeated.

967,569. MULTIPLIER FOR CAMERAS. George J. Schaurbert, Chicago, Ill.



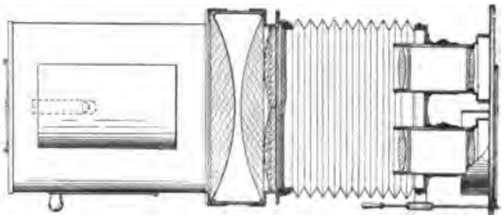
The invention consists in providing a special slidable reinforced frame to be inserted in special grooves cut out in the back camera frame adjoining the camera bellows, and in front of the plate holder receptacle. The frame is placed in the camera through a slot in one side of the camera back. The illustration is a front or plan view of the frame whose interior edge is tongued to allow the square or rectangular sections, provided with grooves on their edges, to slide from one part of the frame to the other. There are two sets of these, one with an aperture in it and the other solid. The small views show their construction separately. As arranged in the frame, six different pictures can be taken on one plate. After one view is taken the solid section is moved in front of the exposed picture, by the finger, which uncovers another aperture, then the plate holder slide is withdrawn and an exposure made. They are all slidably interchangeable. It forms a simple device for the purpose intended.

August 30, 1910.

968,645. METHOD OF PHOTOGRAPHING ON STONE. Joseph E. Chambers, St. Louis, Mo.

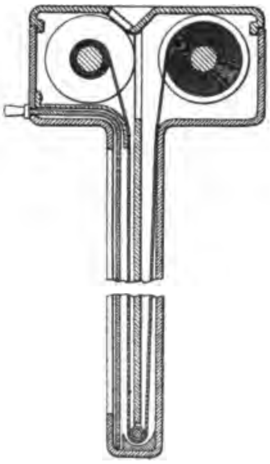
The method consists in first bringing the stone on which the photograph is to be printed, down to a highly polished surface, then to remove therefrom all organic oleaginous or foreign matter which might affect the picture, by the application of an alkaline solution, then etching the cleaned surface by a solution of hydrofluoric acid, which has a tendency to remove broken crystals that might fill the interstices of the stone during the polishing, then applying the sensitive photographic material to this finished surface, the film being so thin that minute particles on the surface of the stone project through it, then printing and fixing and finally coating the printed-out image with a protective solution of sodium silicate, which is transparent, allowing the picture to show through, and at the same time preserve it from atmospheric deterioration.

868,667. PICTURE PROJECTING APPARATUS. Maximilian Klaiber, Brooklyn, N. Y.



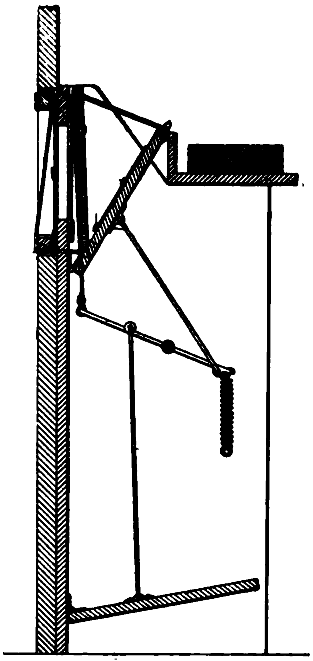
In the illustration, which is a semi-longitudinal sectional view, the electric lamp house is at the left, the large condensers are shown next to the right, and to the right of them and in contact are two small plano convex condensers placed edge to edge; to the right of these are lantern slide carriers, one in front of each condenser, and at the front are two projection lenses in line with the small condensers. Over the front of these is a shutter for eclipsing the light of one and opening the light from the other to obtain a dissolving effect, which is operated by a handle at one side. The large condensers project parallel rays which the small condensers take up, and illuminate the respective projectives. The object is to combine two lanterns in one and avoid the use of prisms, with one illuminant.

868,716. FILM ATTACHMENT FOR CAMERAS. Andrew M. Vale, Sheridanville. Pa.



The attachment consists of an upper box portion with an opaque vertical division; in the right side is the supply spool which passes down the long narrow portion over a roll at the bottom, then upward to the winding-off spool at the top left hand. In the lower part of this compartment is a flexible shutter, the handle of which is observed projecting outward on the left. The left side of the long part is closed by the usual plate slide. The whole is inserted in the top of the camera between the ground glass and the camera back. The operator is thus enabled to focus each view in the usual way, and then make the exposure on the film, transferring same at the end of each exposure.

868,953. PHOTOGRAPHIC-PRINTING MACHINE. Peter R. Johnson, Fairdale, N. D.

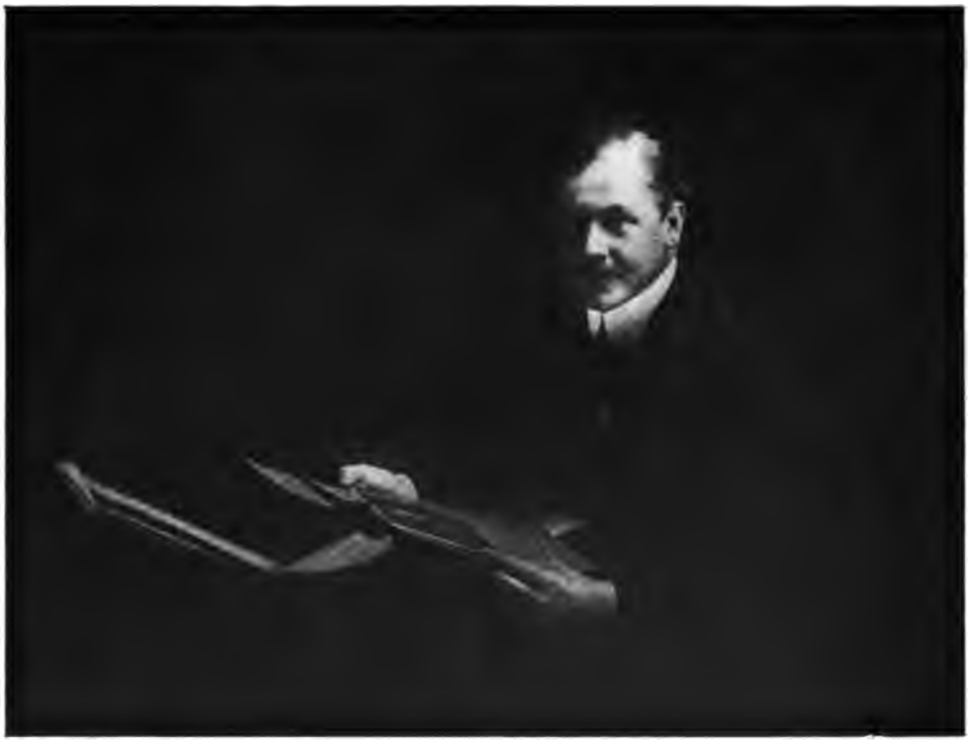


The machine is one of the quick printing type, in which the negative is held in a frame, and by operating a foot lever the sheet of prepared sensitized paper is brought in contact with negative and automatically exposed before a fixed light. On the left is an upright frame rising from the floor, containing a shutter aperture. The shutter is made in two halves, one rising and the other falling, each attached at its axis to a revolvable shaft intended to operate after the bottom treadle is pressed downward. The negative is adjusted in a vertical fixed frame; to the right of this, shown at an angle, is the operating tympan or what is equivalent to the back of a printing frame. This is hinged at its lower end, and has spring pins near that end to hold the edge of the sheet of paper from slipping down. Two flexible straps run forward from the upper end of the tympan over pulleys on each side of the negative frame downward, and are secured to a bar or rod attached to the left-hand end of the operating lever. At the right end of the lever another rod rises and is hinged to the back of the tympan. Depending from the right end is a spring. The actuating treadle rod is located between the pivot of the lever (shown in section) and the left end. As the treadle is depressed with the foot the left end of the lever draws downwards the flexible straps, and these advance the tympan, bringing it in contact with the negative; a projection on the end of the tympan then operates the shutter making the exposure. Releasing the foot pressure on the treadle causes the spring on the right of the lever to pull back the tympan through the connecting-rod at the back of the tympan in position for another exposure. The rectangular shaped block on the upper right-hand bench is the pile of paper printing sheets. It appears to be a simple arrangement for the purpose intended.

AMERICAN PHOTOGRAPHY

Vol. IV. NOVEMBER, 1910 No. 11

A VENETIAN PEARL ARTHUR MARSHALL, NOTTINGHAM



ARTHUR MARSHALL FURLEY LEWIS, LONDON

THE PICTORIAL WORK OF ARTHUR MARSHALL, A.R.I.B.A., F.R.P.S.

CHARLES E. DAWSON

AT almost regular intervals a little howl is raised by certain of our *cognoscenti* to the effect that pictorial photography in Britain is, as Marie Lloyd would say "a thing of the past, old dear." A little while ago these very critics were beating the air in anguish, and dipping their pens in gall at the "American invasion" of our photographic field, because some of the most vital and stimulating works from the bright side of the Atlantic were being shown in London.

The only interesting fact about the chronic kickers is their failure to recognize that all progress is rhythmic; like the incoming tide, it advances by waves, some big and lusty, others scattered and thin, and it is in the interval between the giant breakers that the disgruntled proclaim there is no progress, only decadence.

But a survey of our solid ranks of camera men convinces those of us who are not merely critics that all is pretty well with photographic art, and that the grumblers don't matter so very much. In England, as in America, right in the heart of the photographic centers are groups of dependable men and women who year after year produce work that is sound and satisfying. Occasionally they may create a sensation by some notable departure from the normal, but the sensation is rarely anticipated or even desired by themselves. Among those who consistently hold up the banner of the "Ideal" in England is Arthur Marshall, A. R. I. B. A.

An associate of the Royal Institute of British Architects, the various edifices in brick and stone and marble that distinguish the old lace and boot-making city of Nottingham give ample

GONDOLAS ARTHUR MARSHALL, NOTTINGHAM

testimony to his skill as a master builder. Like so many of our leading professional men, he lives in a delightful old-world village, grows roses, and collects and writes about old oak. But although he has only handled a camera for eight years, he has evolved by sane reasoning and temperament a style of his own which already enlists a small army of imitators.

The prints which accompany this article illustrate Marshall's versatility and resource, although their peculiar atmospheric and textural qualities are almost too elusive for the half-tone process. He has had many tempting offers from British periodicals, but he gibes at the idea of making the bright, plucky silver-prints for which the London editors clamor, and the 20 shillings a time they offer "for right to reproduce" have not lured him to deviate from his exhilarating pastime of producing exhibition pictures.

It may be that Marshall's early training as an architect and draughtsman has given him not only an eye for the (pictorial) main chance, but one that is as accurate as a T square.

I have seen him expose hundreds of films without a stand, and have never known him to render a single line aslant that should be vertical. He never fumbles with his exposure or development, and scarcely ever spoils a negative or print. His thumb hovers around the trigger of his reflex like a hawk over its prey, or a sportsman with a rifle, till the very instant he has got the effect and composition he was out after.

For years I had been trying to explain to myself that his phenomenal success owed much to luck, but having been on picture-making expeditions with him and studied him at work, I now consider that luck and happy chance have less to answer for than his "infinite capacity for taking pains." His formula for prize-winning photographs is "the best instruments available, and concentrated common sense," which is good, so far as it goes, but I think that much is due to the personal equation behind it all.

In the recent one-man show of his work which the Royal Photographic Society organized in London, the seventy-two pictures presented almost every phase of mood, subject, and treatment. There were genre compositions, landscapes, still life, portraits, and Whistlerian effects, — everything, in fact, within the range of the camera.

The president of the Royal Academy, at a students' banquet, advised artists to "draw something every day," and Marshall seems to follow this precept, for he "takes" something every day, and his camera is as constant a companion as his pipe. He is entirely self-taught, and has always been content to work on his own lines, and without following any school or men. Within six months of owning his first camera he was exhibiting his pictures, and he has been exhibiting ever since. I don't know, and I doubt if he knows, how many hundreds of awards and medals he has, for they are stored away by his artist-wife amid the oaken rafters of a little old garret, but some time ago the number of cups and bronzes and similar bric-à-brac awarded to him were said to exceed over two hundred and fifty.

During the last five years he has shown at almost every exhibition of note in America and Europe, but the medal which I think pleased him most was the much-coveted award of the R. P. S. It is the more valuable because the society has now ceased to bestow it.

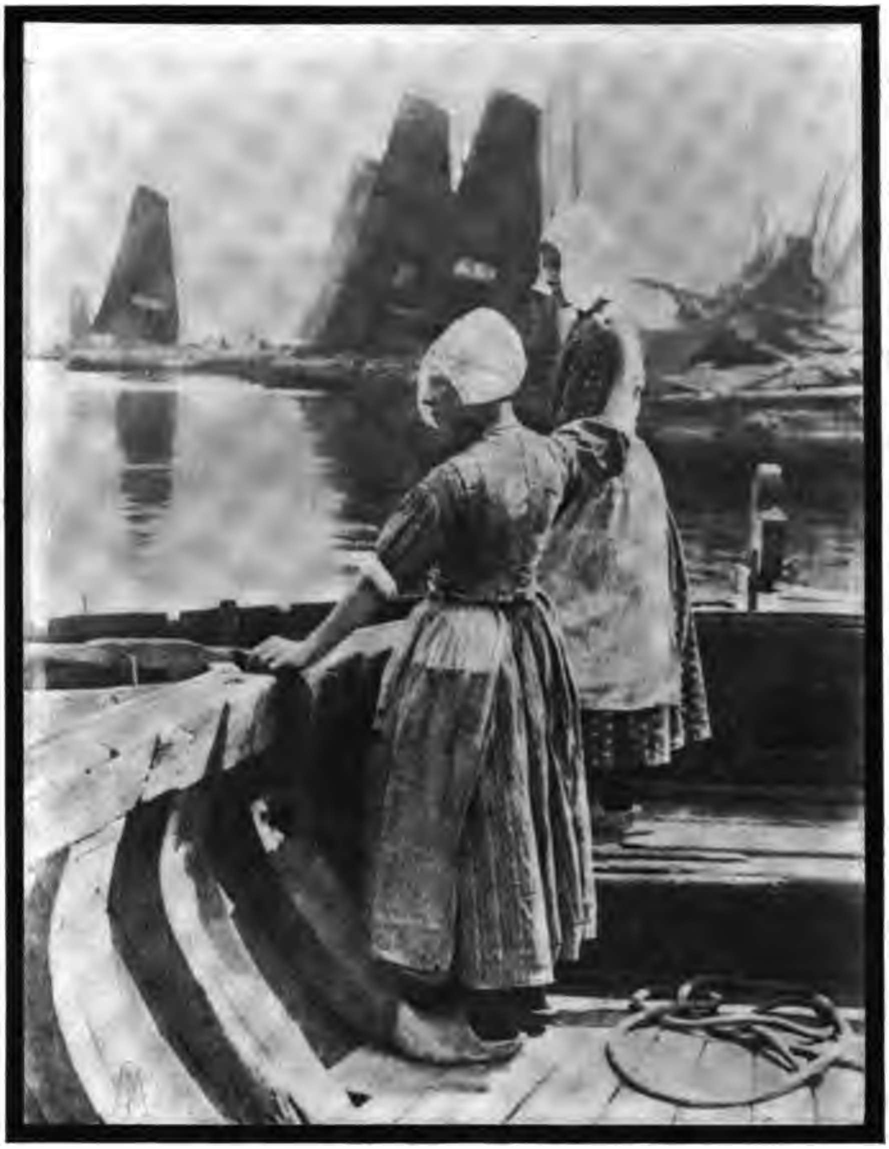
The picture which won for him this honor is "Devotion," reproduced on page 629.

Marshall serves on the hanging committee of this exclusive society, and an idea of the popularity of amateur photography and the labors of selection is afforded by the fact that it took five days to select the two hundred and thirteen — all that it was possible to show — from the three thousand works submitted. At least once a year Marshall goes a-holidaying to some picturesque old corner of Europe. He has lost his camera and all but his temper in a snowslide on the Alps. Hall Caine, the novelist, and he were the last men on the crater of Vesuvius during its eruption a few years ago, and although he was scorched on one side and frozen on the other, and the lava was burning his boots, he stayed as long as he dared, taking pictures of the amazing effects of fire and smoke and tempest. Alas, however, when he got down to Naples with his films, he found on developing that the malignant fumes had destroyed what he hoped would have been his record achievements.

He has gleaned a rich pictorial harvest, too, from Spain, where, at a bull fight with the king of Spain, he secured a vivid series of high-speed pictures, realizing the sunlight, blood, dust, and passion of the romantic but brutal sport of the Plaza de Toros.

The countless snap-shotting globe-trotters who blaze away spool after spool in the untempered glare of Venice by midday will probably continue to add to the joy of the film-makers and their indulgent relatives at home, but since J. M. W. Turner wielded his magic brush and saturated canvases with sunsets, it has been the artist's axiom that the early bird catches the worm in Venice. The unsoftened definition, the sharpness and insistent detail of the buildings, especially when rendered in monotone, annihilates alike aerial perspective and mystery.

But Marshall had most of his pictures done before the flippant tourist button-pressers had come down to breakfast. His "Venetian Pearl" on page 615 (1-25th second exposure) gives, I think, as fine an impression of the Salute as it is humanly possible to produce in monotone. All the glamour of the past in which this glorious building is enshrouded is splendidly rendered. Many giants, from Turner to Whistler, have wrestled in paint with its subtle proportions, but nothing done with paint and canvas gives us a finer presentment of this subject. The difficulty of adequately realizing it by any form of hand-made art has baffled my own brush so frequently, that I can pay whole-hearted tribute to this triumph of the camera.



SISTERS
ARTHUR MARSHALL, NOTTINGHAM

Marshall's "Precious Stones" was taken after a day's studious browsing around the old building and developed in the little room where Ruskin's "Stones of Venice" was written, — the book without which no Venetian student is equipped.

"Gondolas" is another very personal view of Venice, and the decorative arrangement of the vertical lines forms a welcome change from the conventional "full-length" pictures of these most graceful boats. The strength of the foreground detail gives a useful emphasis to the subtle silhouette of the Isola San Gregorio in the distance. His "home portrait" of Miss Gertrude Robins and her "Teddy Bear" is one of the most characteristic of the many studies that London's leading photographers have made of this popular actress-dramatist.

Holland is one of the artist's happiest hunting grounds, and it has been my good fortune to accompany Marshall on one of his active jaunts from the mysterious meres of Friesland in the north to the fertile fields of Walcheren in the south. In Volendam, by the Zuider Zee, the "Old Dutch Fisherman" was photographed, and quite a jolly little battle raged round this picture when it was first exhibited in London a few seasons ago. Some of the old scribes called it fearful things, while the youngsters were equally strenuous in its praise.

"The Potter" and "Brothers and Sisters" were among Marshall's illustrations to H. F. Tomalin's most successful work "Three Vagabonds in Friesland." Since that book was published Marshall was invited by the Dutch government to photograph Zeeland, and the results of this excursion will shortly be published in book form. The enterprising Hollanders recently organized an exhibition of his work at the Hague, when he was personally congratulated on his efforts by the queen and other members of the royal family and court.

After squandering much substance in all manner of riotous and bulky cameras, Marshall has settled down to regular work with a reflex long-focus affair of the most accommodating nature. A two-foci lens, reversing back and rising front, an extra good 12-inch focus lens working at about f. 6, and a few pockets full of Premo 5 x 4 film packs complete his material outfit. His mental outfit — his knack of selecting the essentials, and his temperamental preferences—are, I think, sufficiently manifest in the wide and interesting range of his pictorial output.

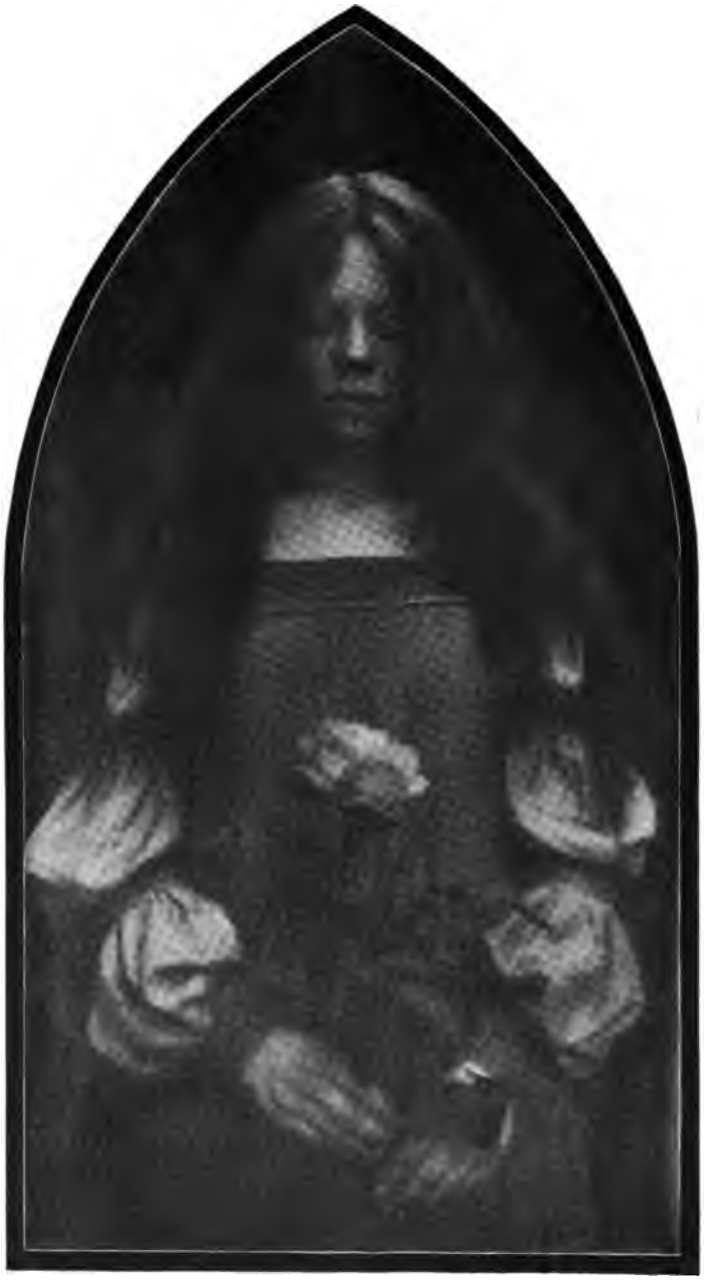
MASKS

BURR MCMILLEN

I HAVE had much trouble with the simple little paper frames called mats or masks, and for the benefit of others who may be having the same difficulties I will give some of my experiences and tell how I have at last found a solution for "mask troubles."

My camera is a 3¼ x 4¼ film camera, but after about three months of using this I purchased a dry plate attachment, for I had discovered that both films and plates have their advantages and disadvantages. I also started out to make prints on post-cards, and immediately I met the first "mask snag." A mask is absolutely essential in making a print from a 3¼ x 4¼ negative on a 3½ x 5½ post-card, as it is also essential in making a print on any paper larger than the size of the negative, not to mention the times when a print is helped by a white border. Before telling what the first snag was that I encountered I will enumerate a few of the forms of masks or methods of producing white borders that are common, and are either obtainable on the market or are manufactured by the photographer himself, and will tell what advantages or disadvantages I have discovered in them: —

1. The ordinary mask, consisting of simply a framework of a single thickness of opaque paper.
2. The glass-backed mask, in which the opaque framework is pasted on a clear glass to give stability, ease of handling, and the same position regularly in the printing frame.



THE ROSE
ARTHUR MARSHALL, NOTTINGHAM

3. Hayden's convertible plate frame used in connection with a complete set of mats of No. 1 style.
4. The method of combining Nos. 1 and 2 when printing in a frame larger than the negative: that is, the negative fastened to the clear glass with adhesive tape and an ordinary mask used over it.

These are the most common forms of masks and methods of printing to obtain white borders.

No. 1 is all right when printing in a frame the same size as the print and negative. Unfortunately the negative is often smaller than the frame or you wish a print larger than the negative, in which case the same condition arises. It is here that trouble with the mask begins, and the other three methods are to meet this condition.

No. 2 is suitable for plates under two conditions only: the one that the negative is over-crowded with detail which should be softened by printing with a thickness of glass between the emulsion or film side of negative and the print, and the other that it should be desirable to have the edge of the white margin diffused on the print; for it is impossible with the mask fastened to a glass to get the emulsion side of negative and print both in contact with the mask. The same conditions apply to films, but in a less degree, as the films are not so thick as glass plates, and the diffusion in either case can be made less. Unfortunately again it often happens that the shadows in the negative are so blocked up and dark or the negative as a whole is so soft that it cannot stand the treatment of printing through a glass, and at the same time a clean-cut margin of the white border is desired. In this case No. 2 style mat is unsuitable.

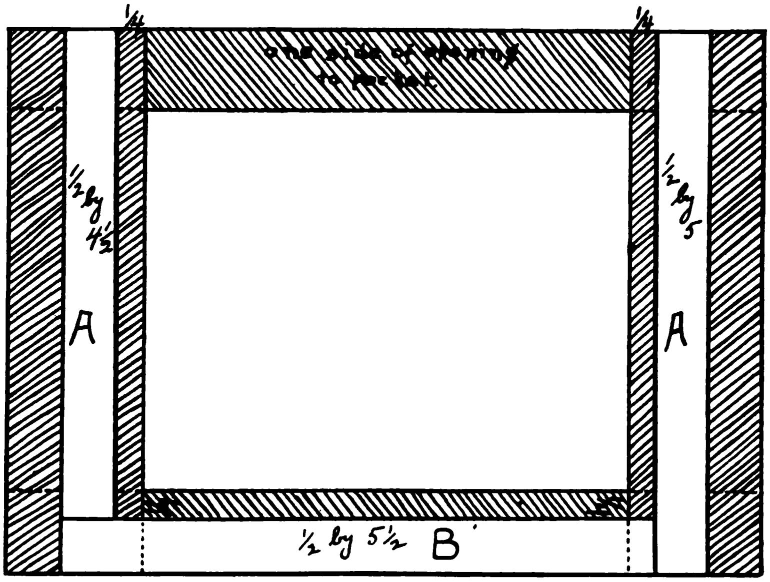
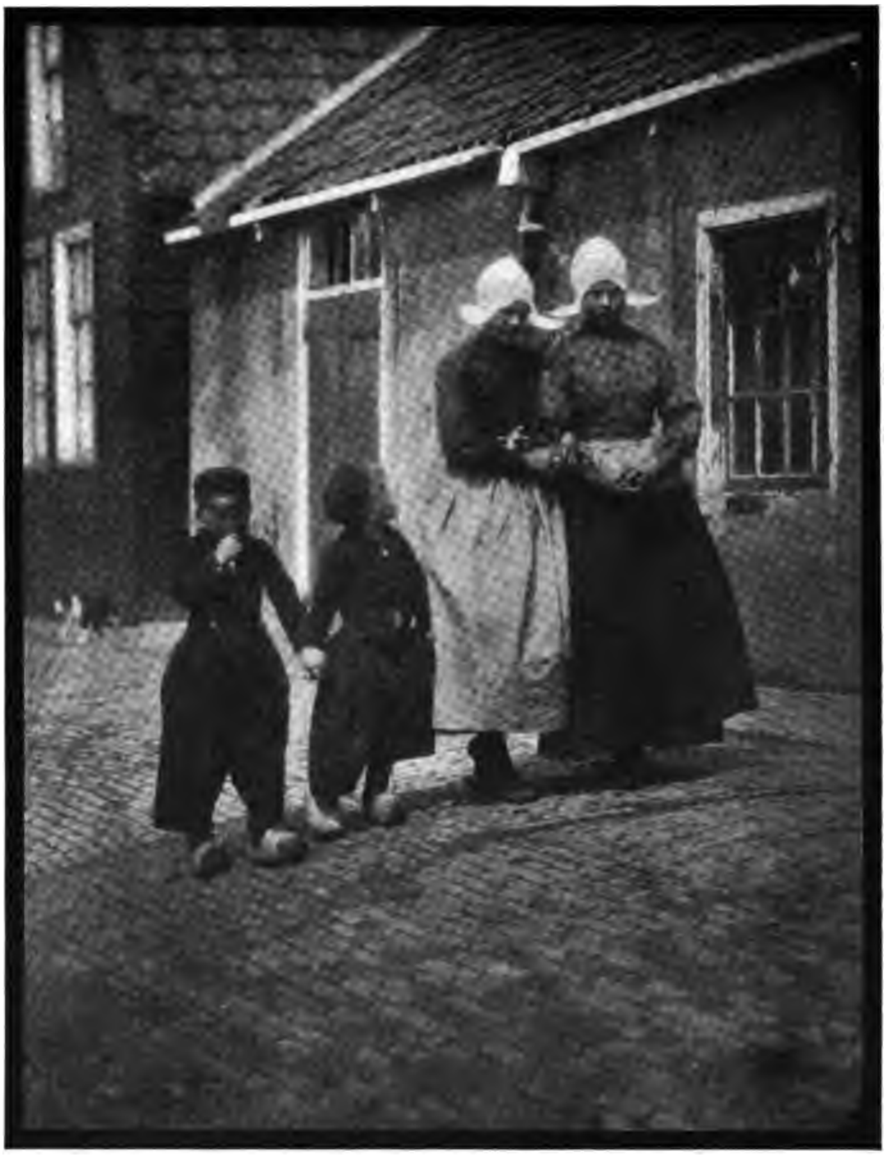


FIG. 1

No. 3 fulfils all requirements up to 6½ x 8½, but one must purchase an extra printing frame to secure the perfect article. I will endeavor to show that it is possible with careful and exact work to make masks that can be used with the ordinary frame and secure practically the same advantages. Of course it takes very particular and exact work and the frame used must be as large as the print desired, as is the case with any method, so if you have not yet purchased a frame that suits your every requirement, Hayden's is the one to purchase. You can then make a set of No. 1 style mats,

BROTHERS AND SISTERS
ARTHUR MARSHALL, NOTTINGHAM



BROTHERS AND SISTERS
ARTHUR MARSHALL, NOTTINGHAM

6½ x 8½ outer measure, cutting the openings of various sizes and from various sections, and you have a process of forming masked borders that, as I said, fulfils all requirements up to 6½ x 8½. I have not mentioned Hayden's film printing frame because films may be printed in the plate frame.

No. 4 has the disadvantage of taking much time to fasten the negative down in exactly the proper spot, and is impracticable, especially if you have a number of negatives from which to make prints and only wish one or two prints from each. Besides the tape will injure the film side of glass negatives and either side of film negatives.

Now some one will no doubt think from what I have said concerning the four processes that by using various ones of the four in various cases every requirement could be met, and this is indeed true; but I have found it much more convenient, aside from style No. 1, to select one method of masking and stick to it. Of course this must be a universal method for all cases where No. 1 style is not suitable, and therefore it differs from Nos. 1, 2, and 4.

I started to make my post-card prints with a common mask of the No. 1 style. No sooner had I adjusted negative, mask, and post-card, clamped them in, and turned the frame over, than I found the negative had slipped enough to spoil the register; that is, one edge had slipped from under the mask so as to print a black streak, or a part of the negative was included that I wished masked out, or *vice versa*. This was the first "mask snag," and shows why mask No. 1 is not suitable to make prints with the frame, or frame and paper larger than the negative. In the last statement, as well as in many others, I take it for granted that even the amateur, who has only one or two prints to make at a time, has not the patience nor the time to worry with negative, mask, and paper until he gets the proper register. The proper register should be obtained at the *first trial* and without consuming an excessive length of time. If you can afford to spend from three to ten minutes *printing* each picture and have "the patience of Job," you *can* use any one of the four methods except the second for any requirement, but excepting the third (up to 6½ x 8½) they would not be considered *suitable* by the average worker.

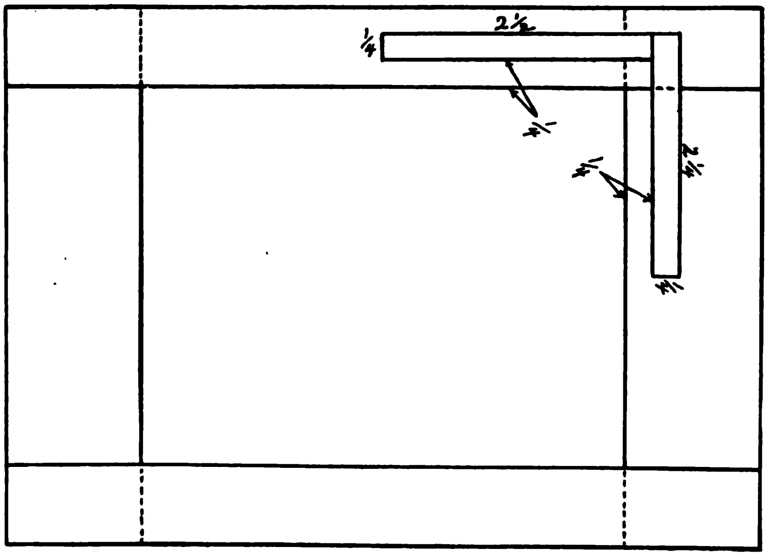


FIG. 2

In telling how to make the mask that in my own case has proved itself to be the key to a universal method of forming masked borders using the ordinary printing frame, I will describe the mask for 4 x 5 negatives in a 5 x 7 frame; as I believe the majority of those who read this have

HEAD STUDY ARTHUR MARSHALL, NOTTINGHAM

cameras of these sizes or are interested in them. Any one can see that such as those for 5 x 7 negatives in 8 x 10 frames, 3¼ x 4¼ in post-card or 4 x 5 frames or larger, etc., can as easily be made. For example: if you have an 8 x 10 frame you can make a set of these masks ranging in negative size from 2 x 2 to 7 x 10, and you can make prints in the same frame ranging from the size of the negative in use at the time or even less than the size, up to 8 x 10.

First procure a quantity of opaque paper, preferably black, and the heavier the better. Such as is used on the ends of Ansco Vidil films or to wrap dry plates with is very good. Use the trimming board and cut four pieces: two of them 1¼ x 5 inches and the other two ¾ x 7 inches. Now paste these together forming a 5 x 7 mat with a cut out 3½ x 4½, being very careful to get the corners exactly square. Next procure some cardboard the exact thickness of your 4 x 5 plates and cut three pieces: ½ x 5, ½ x 5½, and ½ x 4½. Paste these on one side of the mask, as shown in Fig. 1, marking them A and B. Be sure to get the cardboards exactly ¼ inch from cut out all around, as shown. Now cut four more pieces of the opaque paper: two of them 23-32dths x 5 inches, and the other two 23-32dths x 6. Paste the first two on the cardboards A, making their inner edge 1-32d inch from the edge of 3½ x 4½ cut out (parallel measure). Be very careful to paste only to cardboard and not to mask proper. In like manner paste one of the other two opaque paper strips (23-32dths x 6) on cardboard B, the ends extending over the ends of the 23-32dths x 5 strips. Also paste the last strip at the ends only, to the other ends of the 23-32dths x 5 strips, but not to edge of mask proper marked in cut "one side of opening to pocket." Thus the last strip forms the other side of opening to pocket. You now have practically two masks with cardboard pasted between them on three sides of the cut outs, which are 3½ x 4½ and 3⅝ x 4⅝ respectively, the cut out on false mask being larger to prevent interference with the light and edges of true mask. The fourth side of cut outs is open and the 4 x 5 negative may be slipped between the masks, or in other words, in the pocket, and held in exactly the same and proper position in respect to both mask and frame.

It only remains to easily and quickly secure the proper position of prints less than 5 x 7 on the mask. This I do by means of print registers made from thick white paper. I will describe the register for 4 x 5 prints, and others for the intervening sizes between 4 x 5 and 5 x 7 may be added to the same mask, thus making prints from 4 x 5 to 5 x 7 from a 4 x 5 negative.

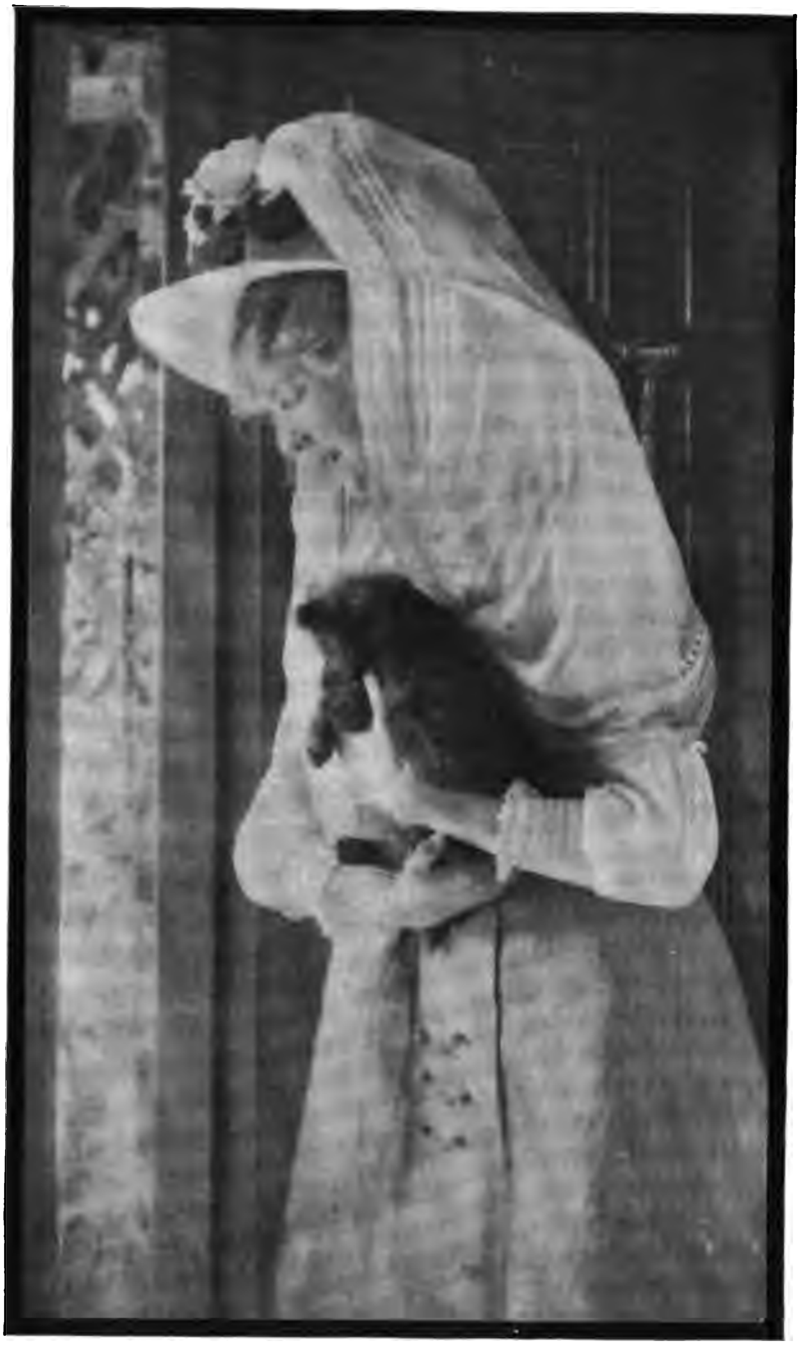
From the thick white paper cut two strips: one ¼ x 2¼ inches and the other ¼ x 2½ inches. Paste these on print side of mask ¼ inch from edge of cut out to form a square, as shown in Fig. 2. A 4 x 5 print registered with one corner snugly in the square will have a ¼ inch white border all around, and if care has been taken to avoid rough or soiled edges, will need no trimming unless the border is considered too wide. Place the registers for the larger sizes on the other three corners, or two may be put on one corner if more than four sizes are desired. The 5 x 7 prints will naturally not need any register.

To make the mask for post-cards from a 4 x 5 negative in a 5 x 7 frame cut the first four strips of opaque paper for mask proper in the following sizes: two 1¼ x 5 and two ⅞ x 7. When pasted together these form a 5 x 7 mask with a 3¼ x 4½ cut out. Change the position of cardboards for pocket so the negative will center in center of cut out, and place register for cards only ⅛ inch from edges of same.

In conclusion I will make a few statements that while writing I considered unnecessary, but on second thought have concluded might make some things a little clearer to some readers.

Use a clear glass in printing frame to support this mask that I have described. While this mask is especially suited to plates the exact thickness of the cardboard edges to pocket, I have found that films can be successfully printed, the amount of looseness or "play" caused by the thinness of films not being sufficient to cause disturbance of register. This mask in no wise hinders printing through a thickness of glass when such is desirable. If using plates, simply turn negative over, and for films insert film and clear glass both in pocket, using a glass of less thickness than cardboard edges to pocket. For diffusion of edge of masked border turn negative over in pocket and then turn mask over, making print on wrong side of mask. If you do much of this you can add print registers to this side of mask also. The print registers for smaller sizes in no way interfere with making larger prints. Do not be afraid to let large prints extend over some of the registers for smaller sizes. Do not try to make one of these masks for a case when negative, frame, and print are all the same size. A No. 1 style mat is entirely suitable and much more easily made.

I am aware that much that I have said is in danger of being termed technical and over-explanatory by many who have had some experience in photography, but I hope I have said nothing but what would be of value to a beginner.



MISS GERTRUDE ROBINS
ARTHUR MARSHALL, NOTTINGHAM

ON THE PRESERVATION OF IRON SALTS

JAMES THOMSON

A PROLIFIC source of failure in working the kallitype process is deteriorated ferric oxalate, and I venture nothing in asserting that nine tenths of the worker's inability to obtain satisfactory results is due to this cause and none other.

Nor can it be otherwise considering the facts, the regrettable feature connected therewith being the almost total inability of the aspiring experimenter to grasp the truth, with consequent failure more or less absolute, not to mention financial loss from spoiled paper and wasted metals.

The basis of kallitype, — like unto platinotype, — is ferric oxalate. Paper coated with a solution of this salt and exposed to the light of day under a negative, results in a more or less visible image which may be brought to full vigor by immersion in a solution containing either silver or platinum in combination with certain essential chemicals. Paper so coated and exposed to light under a negative undergoes a chemical change. The iron salt is thus altered from the ferric to the ferrous state and in this condition has the capacity to precipitate a shower of exceedingly minute metallic particles when brought into contact with silver, gold, or platinum in solution. It is not the only iron salt that will do this, but it is the one experience has demonstrated to be the best.

The resultant picture viewed under a magnifier discovers a piling up of fine metallic particles, each distinct from its fellow, the whole imparting the agreeable effect so much admired by people of taste, and which is not to be found in photographic prints outside of platinotype and kallitype.

Ferric oxalate is reducible to a ferrous condition through the action of heat, light, and moisture. Unless put up in air-tight receptacles there is rapid deterioration. To guard against light the maker's custom is to put up in amber-brown bottles encased in paper. With the manufacturer's unbroken seal upon the cork it is presumed to be moisture-proof.

In view of these facts it is plain that if through one cause or another the *ferric* oxalate has already reached the *ferrous* state when we purchase it, there must be failure to achieve results. And I risk nothing in asserting that it is thus often spoiled and worthless when handed over the counter to the unsophisticated and unsuspecting customer.

I can perhaps best explain matters by recounting my own experience in buying the chemical from time to time.

Some ten years ago I began to experiment with the iron printing processes in general and kallitype in particular, inspired by curiosity to discover the measure of success that might be mine in the sensitizing of some of my own printing media. Furthermore, aside from wanting to print on fine and rare paper stock that would lie flat upon the mount by a pat of paste at the corners, I was possessed of the desire to dabble with chemicals and see what would happen.

About that time was published number ten of the *Photo Miniature* series "The Blue-print and Variations," and a perusal thereof started a number of trains of thought, some of which are still running. Kallitype especially had its appeal from its cheapness and likeness to platinotype. I therefore invested in the necessary chemicals.

Of Theodore Metcalf Company, an old and reliable Boston wholesale and retail chemist establishment, I procured a couple of ounces of the ferric oxalate, and it must have been all that it should, else I could not have had the surprisingly satisfactory results I did have, upon a first attempt.

But — unfortunately there usually is a but — when I renewed my supply I fell down badly and counted naught but failure after failure. Do what I would, though I ran the gamut of change in experimentation, I could not come anywhere near repeating my initial performance, and in fact could not possibly do so *because the chemical was inert.*

DEVOTION
ARTHUR MARSHALL, NOTTINGHAM

SPRING S. H. GILBERT, WILKES-BARRE

Wilkes-Barre Camera Club

In the light of present-day knowledge this is plain enough, but in those days I had never an inkling of the truth. I in fact attributed want of success to some dereliction on my own part, and in disgust — after repeated failures — abandoned all effort as useless, — but only for a time.

This has doubtless been the experience of a great many workers in platinotype and kallitype who do not prepare their own iron salt. When the ferric oxalate is fresh success crowns their efforts, when it is not then failure more or less absolute is their portion, and it is wholly a matter of chance which condition obtains. Cèrtain it is the dealer does not, and the purchaser cannot know whether the salt is in prime condition until the wrapper has been removed. Even then appearances are so deceptive, for absolute certainty a chemical test is required.

After a rest of a year I returned once more to the attack.

Again I laid in a stock of a couple of ounces ferric oxalate and on taking off the wrappers quickly discerned a great difference in contents, both as regards color and condition. In one were glistening *greenish-brown* scales, in the other a powdery mass *pale green* in color. The first was ferric oxalate in good order, the other the same salt gone bad. The first represented the salt in condition to finish a print under a negative, the second the same salt after exposure had been made.

Two years after, on buying four ounces, I found them all spoiled. On returning them to the seller he found the entire stock upon his shelves, save a single ounce, in like condition, he doubtless selling it to customers every day.

In another two years I had sent me four ounce bottles of hopelessly deteriorated salt, without paper wrappers and in absolutely clear white glass vials. Thus exposed upon the firm's shelves

SUMMER PASTORAL R. L. LITCH, WILKES-BARRE

Wilkes-Barre Camera Club

for months, and maybe years, to be occasionally sold to such unfortunates as required it, the salt was as worthless for photographic sensitizing purposes as so much dirt from the highway.

To the initiated a glance was sufficient to demonstrate that the chemical was not as represented, but what of the unsuspecting, unknowing person?

He would have gone his way and counted failure as so many others have doubtless done. Would have perhaps spoiled a lot of good linen paper and wasted precious time in attempting the impossible.

Ferric oxalate, even as it leaves the maker (it is asserted), is not of constant quality. The usual advice to the worker is to make certain of its stable qualities by preparing it himself. The large consumer may thereby undoubtedly benefit, but for the user of an occasional ounce it will hardly pay. The best that can be done in such a case is to take unusual precautions to get the best possible the market affords.

Furthermore, the iron salts are subject to deterioration when being used by the experimenter. In damp weather ammonia iron citrate will become a liquid mass should the bottle be loosely stoppered. A bottle of ferric oxalate in perfect condition may very quickly spoil once a portion is used unless extra precautions be used in keeping moisture from the remainder. For instance, a worker using a part of an ounce bottle gets perfect results, but on repeating the operation a month later he fails and is consequently perplexed.

In summer or fall, when the atmosphere is humid, in using ferric oxalate the bottle should as quickly as possible be recorked.

On a sweltering humid summer day while in a leading chemist's establishment I watched a salesman weigh out a couple of ounces of green citrate of iron and ammonia. He took it from a pound bottle, left it on the scales for at least ten minutes while he attended to other matters.

The moral of this is to always insist upon getting the iron salts — and more especially the ferric oxalate — in the original unbroken package of the manufacturer, which in the present case is either Merck or Mallinckrodt. The makers enjoin our doing so, and we may well give heed to injunction.

My present plan is to send to Merck and Company, University Place, New York, for such ferric oxalate as I require, but after what has been said regarding the instability of the salt even as it comes from the maker, I do not undertake to declare that it perfectly fills the bill. But what else can one do unless one prepares it oneself?

Captain Abney in *Platinotype*, writes, "To test any doubtful solution, add the ferricyanide of potassium (red prussiate), when if any ferrous salt be present it will strike a blue precipitate. If the ferrous salts be only slightly present the red prussiate will restore it again." The best plan is to pour a few drops of solution upon a piece of glass, then add a drop of the red prussiate, when if ferrous oxalate be present the solution will turn blue, while if in perfect condition, result will be green. The difference is beautifully exemplified when one has a thoroughly spoiled lot, and another in perfect order. The first will give a color like a blue-print, while the last-mentioned will be green.

No doubt good kallitype prints may be had, notwithstanding a trace of the objectionable ferrous salt be present, prints too that serve the purpose of some pictorialists better than would the absolutely perfect. Such efforts have been seen in exhibitions — the slight fog and more or less debasement of image appealing to lovers of the unusual.

Personally I keep my ounce bottle of ferric oxalate from which I am on occasion supplying my needs in an air-tight screw-top preserving jar of small dimensions. Surplus stock is kept in another jar of larger size, but in that the extra precaution is taken to seal the corks with hot paraffin, thus most effectually guarding against moisture.

Would that the manufacturer saw his way clear to adopt some such plan as paraffin sealing. The good housewife follows it in putting up fruit preserves in tumblers, she leaving a small space at top which she fills with melted paraffin, thus most effectually keeping out the air.

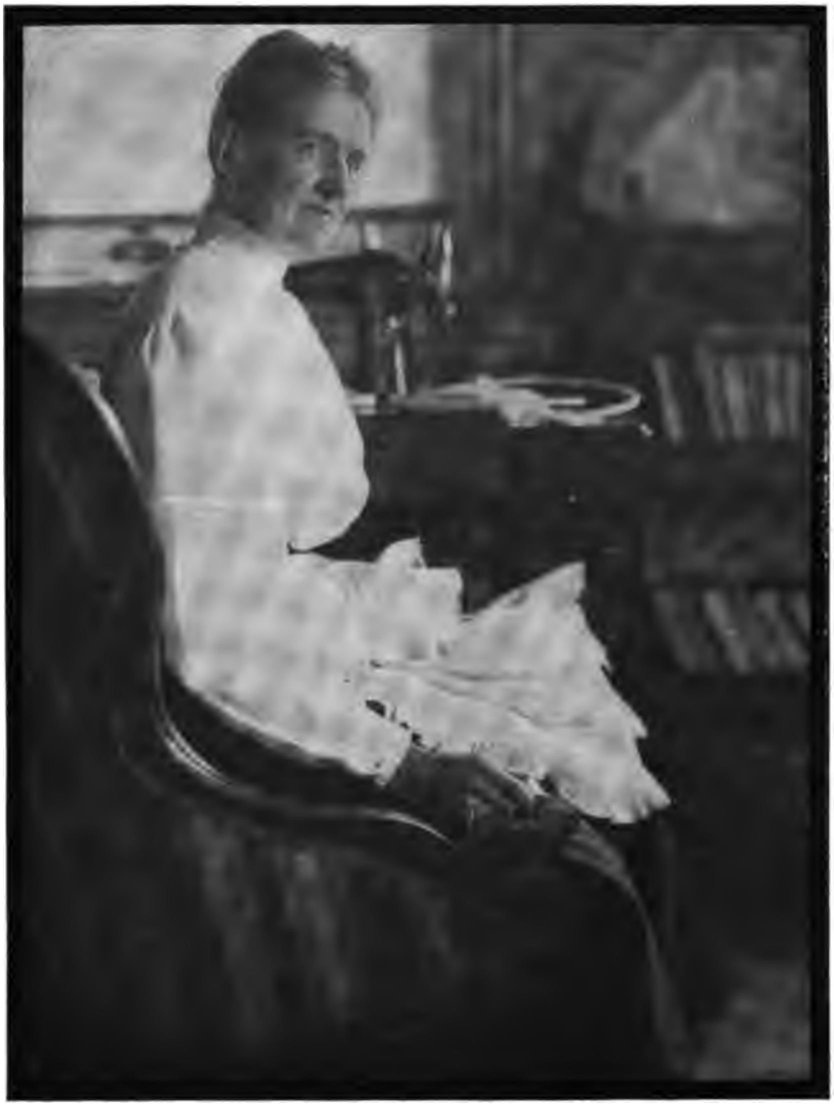
If the maker of iron salts would but press the thin shave cork at present employed down into the neck of the bottle so as to leave a sinkage of a quarter of an inch, and then pour some melted paraffin into the opening, the outside air could not possibly find entrance, the contents keeping indefinitely.

As things are at present the flimsy shaved cork in the ferric oxalate bottle is frequently so loose it may with slight pressure be pushed entirely down into the neck. This being a fact, there need be no surprise that the contents so readily spoil. It would be the greater wonder if they did not.

Under the circumstances therefore it behooves the intending experimenter to buy but an ounce or two of the salt at a time, though by the paraffin air-tight jar method I have kept four ounces in perfect condition for upwards of two years, — the last few grains proving to be as strong as the first.

In the August, 1910, issue of this magazine is given the method of making the ferric oxalate. See page 448, Mr. Jarman's excellent article on "Platinum Paper."

* * *



THE DRESSMAKER
WILL D. BRODHUN, WILKES-BARRE
Wilkes-Barre Camera Club

THE VEILED POOL H. C. SHEPHERD, WILKES-BARRE

Wilkes-Barre Camera Club

A REAL ENLARGING LANTERN

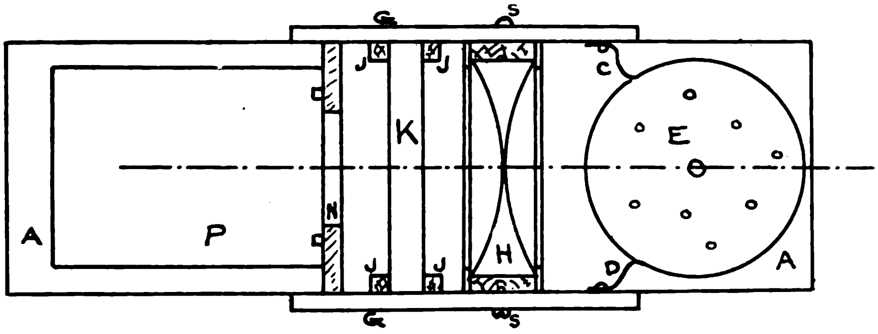
R. J. SPOONER

The VARIOUS photographic magazines frequently print articles describing home-made apparatus for bromide enlarging. Most of this apparatus is of the "daylight" type, but unfortunately most of us do not have much daylight time at home and consequently have to forego the pleasure of making our own enlargements on account of the cost of an enlarging lantern.

A home-made enlarger for night work is here described which has done just as satisfactory work as a store machine, and the cost is only about one tenth.

The materials needed, aside from the condensers, are easily obtained, — a small packing box of ¼-inch wood from the grocery store, two cigar boxes, a large tin can (a 3-pound coffee can is best), a mantle gas burner with some ¼-inch pipe and fittings, rubber hose, nails, screws, glue, black paint, etc.

The condensers should first be purchased, as these will determine the size of the lantern. The diameter of these lenses should be equal to or greater than the diagonal of the negative. The enlarger here described is used with a 3¼ x 4¼ plate camera and the condensers are 6 inches in diameter. These can be bought from a photo supply house at prices from $3 to $5 a pair. Now don't be frightened off for this is about three quarters of the entire cost.



PLAN - FIG. 1.

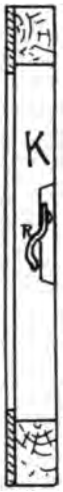


FIG. 6

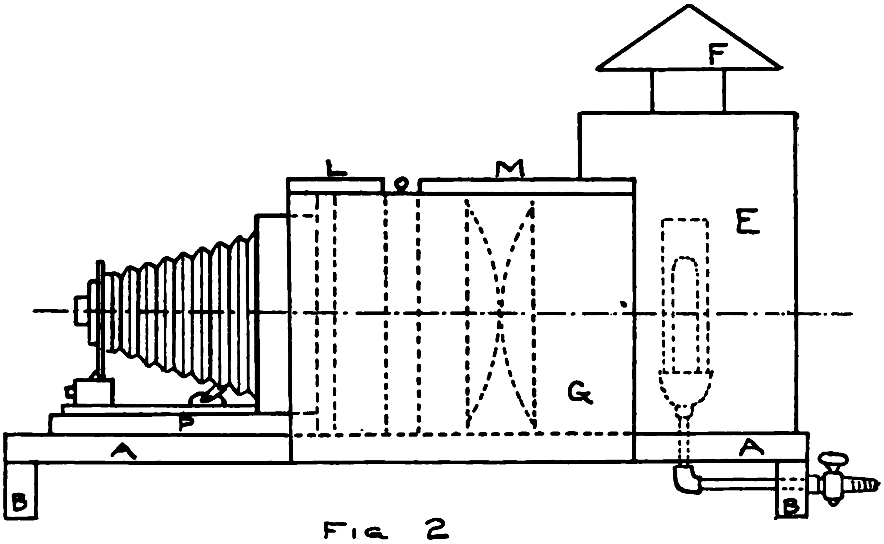


FIG. 2

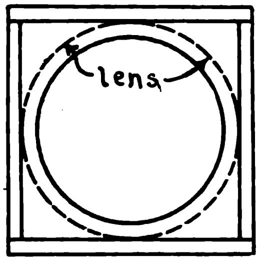


FIG. 3 - H

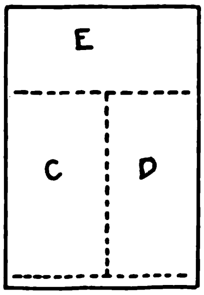


FIG. 4

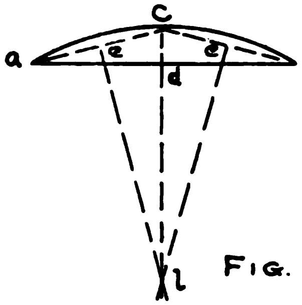


FIG. 5.

R. J. Spooner. '10.

WOODLAND R. S. KAUFFMAN, WILKES-BARRE

Wilkes-Barre Camera Club

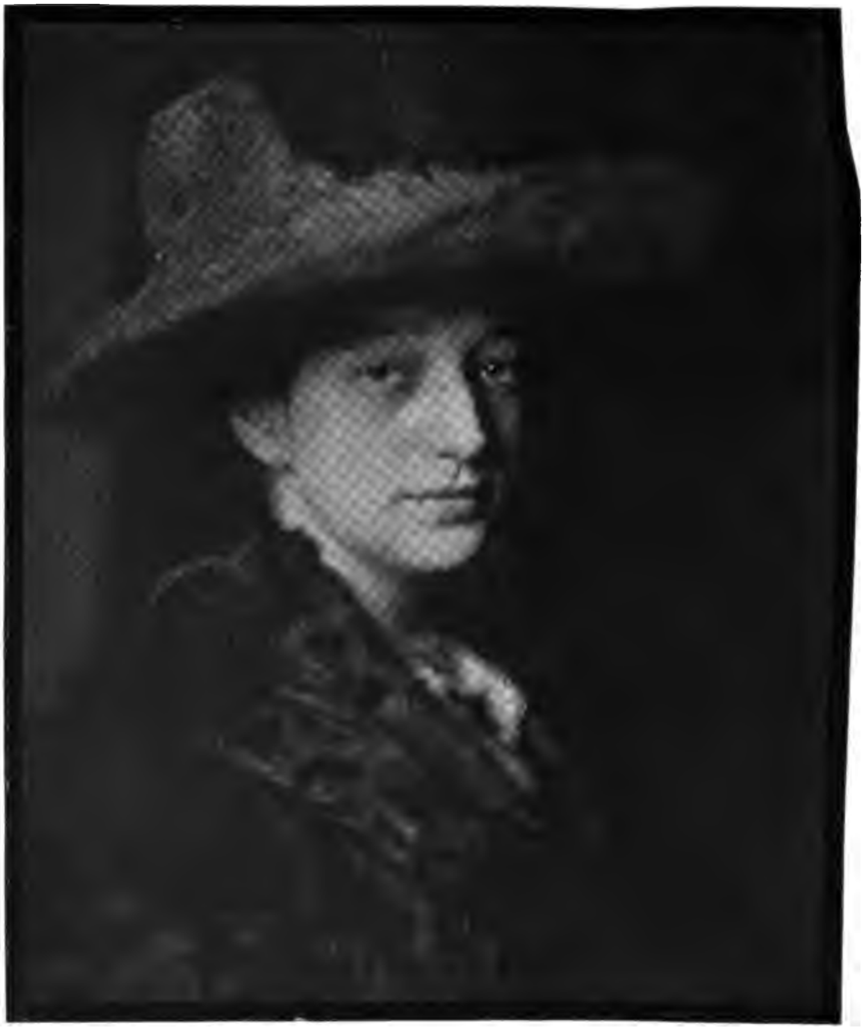
Knock the packing box apart and make a container H for the condensers. This is a frame of ¼-inch strips as wide as the combined thickness of the two lenses and just large enough to hold them. Make covers of cigar box wood for both sides of this frame, cutting circular openings in the center ¼ inch smaller than the diameter of the lens. Nail one side on with small nails and put the other on with small screws so that lenses may be removed and cleaned. Figure 3 shows the container with one side removed, the lenses being indicated by dotted lines.

The base of the lantern AA is made from the end board of the packing box, usually 1 inch thick. It is ⅛ inch wider than the container H and 30 inches long. At each end nail cleats 1½ inches wide (BB, Fig. 2).

Now for the lantern proper. On one side of the tin can make cuts as shown by the dotted lines in Fig. 4 and bend the leaves CD outward to give an opening 6½ inches square. Nail this can at one end of the board and make air holes through bottom of tin and board, also a ⅜-inch hole at center. (See plan, Fig. 1.)

The sides GG are of ¼-inch board about 10 inches wide and 7 inches high. The tin is tacked to the inside as shown at C and D, Fig. 1.

Figure 5 shows the method of determining the approximate distance from the light to the condensing lenses. *Abc* is section of lens, *ab* being the diameter and *dc* the thickness. Bisect the lines



PORTRAIT OF MISS S.
LOUIS MENDEL, PETERBOROUGH
Gold Medal, Seventh Toronto Salon

ac and *bc* and draw perpendiculars *el*. Then *ld* is the required measurement. Screws SS hold the container in place and permit of readjustment after lantern is set up.

A kit K for holding negative is placed about ¾ inch in front of the lenses. The kit is made of ½-inch stock with an opening 4¼ inches square. To this piece is nailed a thickness of cigar box wood with opening 4 inches square. (See Fig. 6.) Small brass spring clips R on two sides hold glass and negative in place in the kit.

Four square cleats J of cigar box wood are nailed or glued to the sides, permitting kit to be easily put in place and removed. A screw eye in top serves in lifting the kit out.

The cover boards L and M may now be nailed on, M being cut to fit close to can E, which is tacked to its edge.

N is a ¼ inch board 6½ inches square, with an opening the size of the inside of the camera when the back is removed. This is nailed at the bottom to a board P of sufficient thickness to bring center of camera lens in line with center of condensers. Small cleats are nailed around the opening in N so that camera will fit tightly inside these and close to the board N. This L-shaped support is adjustable, permitting the camera to be moved along the base to aid in getting different sized enlargements.

Take the can cover to the tinsmith and have a smoke hood made, as shown at F, Fig. 2. It must be riveted and not soldered. The hose cock, piping, and burner are shown in Fig. 2, the center of the mantel being in line with center of lenses. The inside of the hood should be painted with stove-pipe enamel to prevent reflection.

Paint the inside of the box a dull black from the point where the condensers are set to the front, and the outside may also be given a coat of black.

If a can like the one described is not available, the tinsmith will make one for a small amount.

When one is fortunate enough to have electric lights, the gas fixtures may be omitted, and a 60 watt Tungsten on a cord put in through a split wooden cover is much more convenient.

THE MOTION PICTURE

CHAPTER IV, *continued*

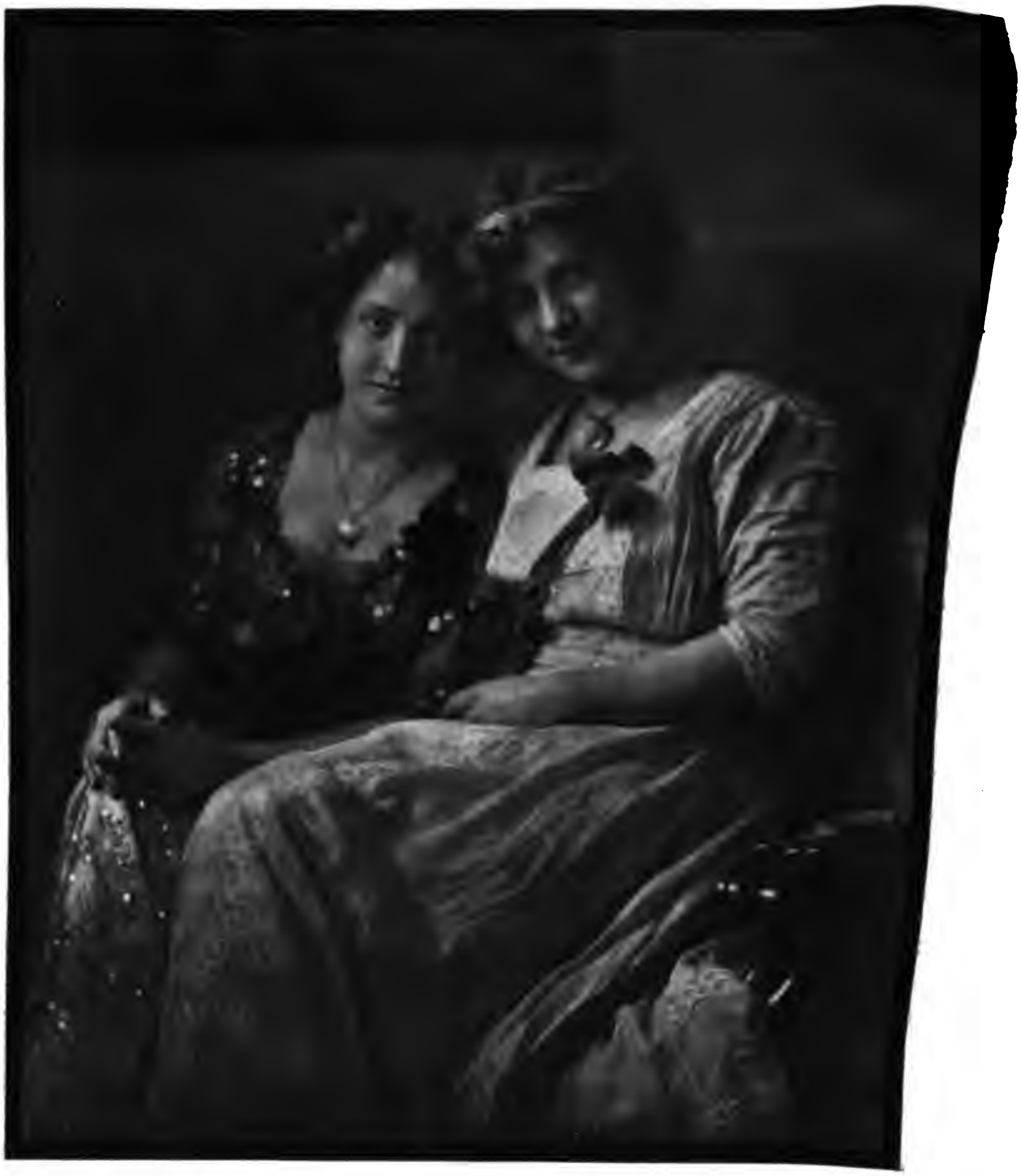
STANLEY CURTIS

AN inexpensive and thoroughly reliable rheostat for use on 550-volt circuits may be constructed by almost any operator, providing the work is carefully done. Particular attention must be given to the insulation of such a rheostat, however, or trouble may be expected.

The rheostat to be described will carry a current of 25 amperes for over an hour without overheating, and for short runs of twenty minutes or so it will pass 35 amperes without danger of burning out.

In calculating the amount and size of wire necessary to give us the proper resistance for any circuit we make use of Ohm's law, which reads as follows: "The strength of a continuous current in a circuit is directly proportional to the electromotive force acting on that circuit, and inversely proportional to the resistance of the circuit." That is, the current is equal to the volts divided by the ohms; or, as it is expressed, $C = \frac{E}{R}$. For instance, an ordinary 110-volt, 16 candle power carbon filament incandescent lamp has an approximate resistance of 220 ohms. If this lamp is connected to a circuit, having a pressure of 110 volts, the current passing through the lamp would be 110 divided by 220 or .5 of an ampere.

From the formula $C = \frac{E}{R}$, we may take two others: $\frac{E}{C} = R$, or the volts divided by the amperes equals the ohms, and $C \times R = E$, or the amperes multiplied by the ohms equals the volts.



PORTRAIT OF TWO LADIES
ALEX. MÖHLEN, HANNOVER

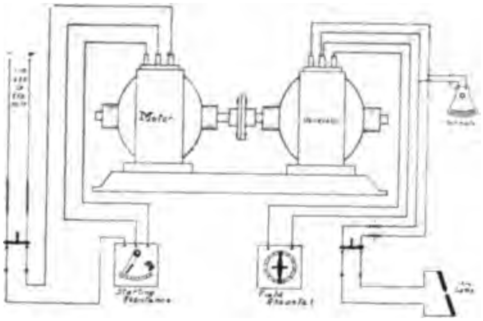


PLATE 2-MOTOR-GENERATOR
STANLEY CURTIS '10

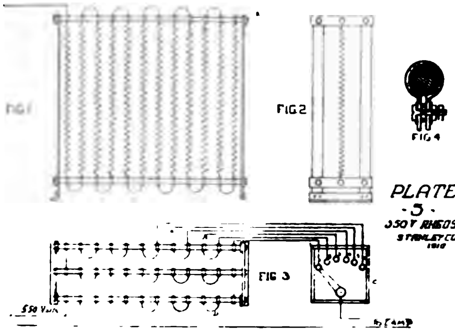


PLATE
-5-
550 V RHEOSTAT
STANLEY CURTIS
1910

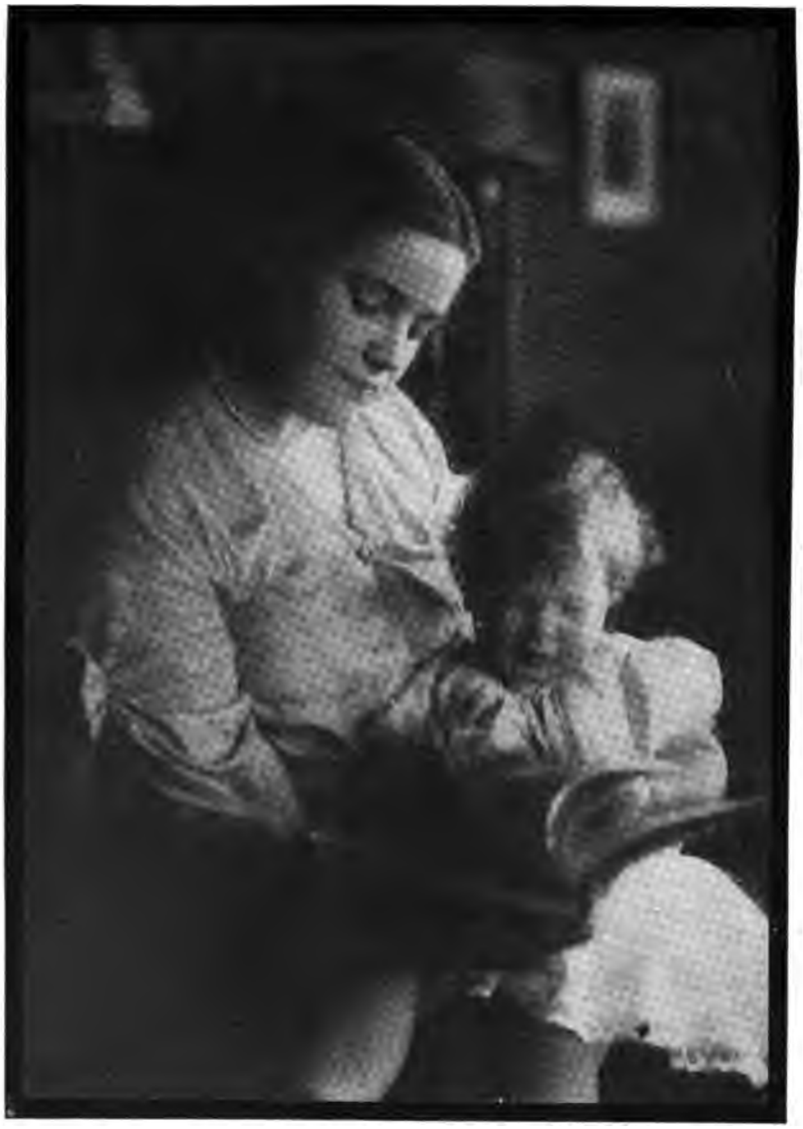
In designing the rheostat for use in series with a single arc on a 550-volt circuit, we must first determine the amount of current we shall have to use in order to produce a sufficiently powerful light. As 25 amperes will, in most cases, give the desired result, we will use that as the minimum amount of current the resistance in question will pass. By applying the formula $\frac{E}{C} = R$ and dividing 550 by 25, we find that we shall have to have a total resistance of 22 ohms in the circuit. Now, the resistance of the arc, when the carbons are separated 3-16ths of an inch, is about 1.6 ohms; and the resistance of carbons, connections and wire may be put at .4 of an ohm. Therefore we must have about 20 ohms' resistance in the rheostat in order to pass the desired amount of current.

German silver wire may be used for the resistance coils. This wire, in a 30 per cent alloy, has twenty-eight times the resistance of copper, and has a resistance of 17.95 ohms per 1000 feet in the No. 8 size. The safe carrying capacity of No. 8 German silver wire for continuous duty is 17 amperes, but for intermittent duty the capacity is doubled. For projection work we may safely "split the difference" and figure on this size as the one to use, as the machine will seldom be used for any great length of time on the 550-volt circuit with a rheostat, owing to the enormous waste of current and resultant expense.

As this size of wire has a resistance of 17.95, or practically 18 ohms per 1000 feet, we shall have to use about 1110 feet of wire to give the desired 20 ohms' resistance. The wire may be wound in coils over a wooden mandrel 1½ inches in diameter. If eighty turns are put on for each coil, the turns will be somewhat less than ⅜ of an inch apart when the coil is pulled out to 28 inches in length and fastened in the frame, as shown in Plate 5, Figs. 1 and 2. There will be about 31 feet of wire to each coil, and in 36 coils, therefore, we shall have 1116 feet of wire.

The frame or support for the coils is best made of ¼-inch strip and angle iron, as shown in the cut. The rods from which the coils are supported are pieces of ¾-inch gas pipe. Figure 4 in Plate 5 shows the method of clamping the ends of the coils. A strip of ⅛-inch brass is bent as shown, and is insulated from the gas pipe by sheet asbestos. After assembling the spirals, they are all connected in series. The controller shown in Fig. 3, Plate 5, enables the operator to cut out from one to six of the coils, thereby increasing the current when necessary. This will be found very convenient, if the current is taken from the railway feeders, as the voltage lowers when a car passes.

As mentioned above, a rheostat is very wasteful of current, especially on circuits of from 220 volts upward. For example, the arc requires about 25 amperes at 45 volts, or 1125 watts to furnish light. Therefore we use up 25 amperes at 505 volts on a 550-volt circuit in the rheostat. It will be seen at a glance that 13,750 watts are wasted in the resistance, and only 1125 watts are actually used to produce the light. Practically the only means of avoiding this enormous waste of current is to use a motor-generator set, a diagram of which is given in Plate 2. Here we have a motor, wound for the line voltage, direct-connected to a low-voltage dynamo. The dynamo is usually shunt wound and the voltage may be varied by turning the handle of the field rheostat. The dynamo



MOTHER AND CHILD
GEO. AMY, NEW YORK

terminals are connected directly to the arc lamp, with little or no resistance in the circuit. A voltmeter is generally used across the generator terminals to show when the proper voltage is obtained before striking the arc.

Such a set requires practically no attention, except cleaning and oiling, and will soon pay for itself in the amount of current saved if the arc lamp is required to burn for any great length of time.

Direct current has been almost entirely replaced with alternating current in the outskirts of nearly every city and town; in fact, in some of the more recent central station installations, alternating current is the only kind generated for use on power and lighting circuits. The principal reason for this is the fact that alternating current may be generated at a comparatively high voltage at the plant, then "stepped up" to a far greater voltage by means of "transformers," and finally sent out over a transmission line of comparatively small copper wire to the center of distribution, perhaps many miles away, where it is "stepped down" to the usual 110 or 220 volts for use in the stores, residences, factories, etc.

A high tension current may be sent over a comparatively small wire without undue loss or heating, whereas the same amount of energy, at a pressure of 110 volts, for instance, would require many times the cross-section of conductor to carry it to the consumers. Therefore, the alternating current system means a great saving of copper in long transmission lines.

On an alternating current circuit we may make use of a type of the "transformer" above mentioned, to cut down the usual 110 or 220 volts to the 40 or 50 required for the motion-picture arc, and at the same time save the extra current that would be wasted in a rheostat, if one were used.

Before taking up the use and connections of the transformer, let us understand the principle on which it operates. This principle is based upon a property of electricity known as "induction." If two wires are laid side by side, but insulated from each other, and an alternating current is passed through one, a similar current will be "induced" in the other wire, even though they are not connected in any way. Now let us wind, say, five turns of rather heavy insulated copper wire around one end of a bundle of soft iron wires, perhaps ½ inch in diameter by 6 inches long. Then, on the remaining space on the iron "core" we wind, say, fifty turns of somewhat finer insulated wire. The two ends of the fine wire may then be connected to the terminals of an 8 candle power, 110-volt lamp. If we connect the ends of the heavy wire to the terminals of a rather powerful battery having a pressure of about 6 volts, the lamp will flash up brightly every time the connection to the battery is broken. This is due to the higher voltage induced in the fine wire, the inductive effect being greatly enhanced by the presence of the iron core. While, in the above example, an "interrupted direct current" was used for sake of convenience, the effect would be the same with alternating current. The reversals of current would come so rapidly, however, that there would be no "flashing" of the lamp and it would burn steadily.

The current induced in the fine wire will be greater in potential and less in amperes than that of the heavy wire. This ratio is almost entirely dependent upon the relative number of turns existing between the large and the small wires. Thus, if we connect the ends of the fine wire coil to a 110-volt circuit, an electromotive force of 10 volts will be induced in the coarse wire coil. It is upon this principle that the "economizers" for motion-picture arcs are constructed. A glance at Fig. 2 in Plate 3 will make this clear. The current passes through the primary coils, P, around the core, C, at a voltage of 110 or 220. This induces a current of twice the amperes but only about half the voltage, in the secondary coils, S. The secondary terminals are connected to the arc, L.

If an alternating current is passed through a solenoid or hollow coil of wire, secondary currents will be induced in each neighboring turn. These currents tend to oppose the flow of the main current, and constitute what is known as an "inductive resistance." If a mass of laminated iron is placed inside the solenoid, this retarding effect is greatly increased and we have what is called a "choke coil." Choke coils are often used on motion-picture arcs, and the connections are shown

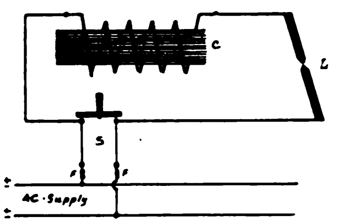


FIG 1

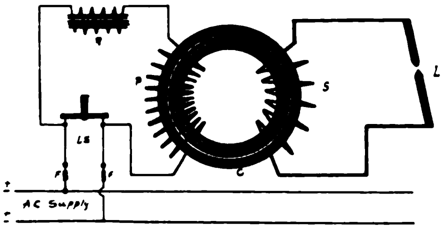


FIG. 2

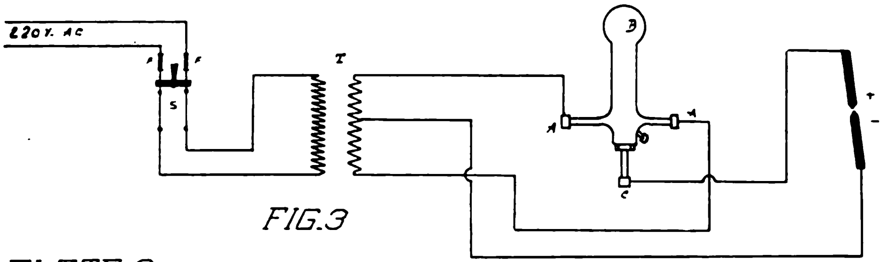


FIG. 3

PLATE 3 STANLEY CURTIS 1910

in Plate 3, Fig. 1. A small choke coil is introduced into the primary circuit of the transformer in Plate 3, Fig. 2, at R. By means of this coil the voltage and resultant current in both primary and secondary may be increased or diminished as required.

Thinking that perhaps some reader of an experimental turn of mind might like to try his hand at the construction of an inductive resistance to replace a rheostat on an alternating current circuit,

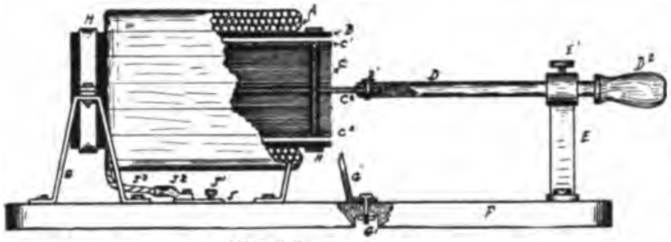


FIG. 10

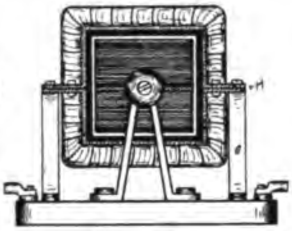


FIG. 11

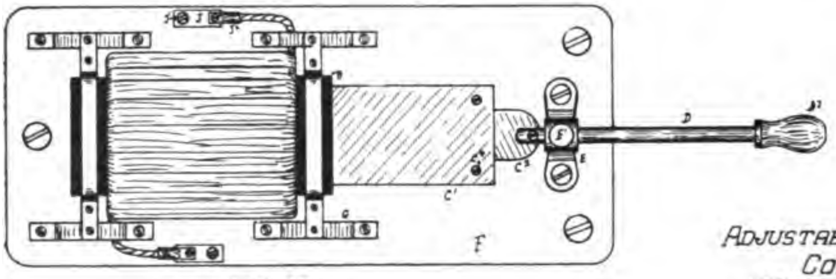


FIG. 12

ADJUSTABLE CHOKE-COIL
STANLEY CURTIS 1910.

the writer will describe a choke coil, built by him several years ago and which gave excellent service on a 60-cycle, 110-volt circuit. The coil consists essentially of a solenoid of insulated copper magnet wire, A, Fig. 10; the fibre support or bobbin, B; the laminated iron core, C, which can be partially withdrawn from the solenoid by means of the rod, D; the whole mounted upon a slate base-board, F. Figures 11 and 12 give the end elevation and plan, respectively; in Fig. 12 the core is shown drawn out to the fullest extent.

We will first take up the construction of the core, which consists of a pile of very thin sheet-iron plates cut 8 inches long by 3 inches in width. There must be enough pieces cut to make a pile 2 11-16ths inches high when tightly clamped together. We shall also need two pieces of ⅛ inch iron plate cut to the same size, and a piece of 1-16th inch sheet-iron cut to this size, but having a projecting tongue, C^2, Figs. 10 and 12, on which to fasten the rod, D.

After cutting the laminations of thin sheet iron (the writer used "stove-pipe iron") each piece should be coated with shellac varnish. A quick and effective method of doing this is to dip the sheets in a shallow tray containing the shellac, holding the sheets of iron by the edges and afterward standing them on edge to dry. The insulation of one piece from another in this manner materially reduces the quantity of heat which develops in the core, after long use. When the iron is dry, divide the mass into two piles and place the 1-16th-inch plate with projecting tongue between the piles. (See Fig. 10.) The ⅛-inch plates are then placed on top and bottom and the whole bundle squared up. Clamp the bundle firmly together with a hand-clamp and drill a 3-16ths inch hole down through the pile, in each corner of the plate, to take the clamping screws, C^4, Fig. 12. These holes should be drilled down to the bottom plate, but not through it. In this plate holes should be drilled and tapped for the long 8-32 screws, one of which is shown in Fig. 10. The heads of these screws must be countersunk in the top plate and the body of the screws insulated from the core by wrapping paper around them, before inserting in the holes. If the work has been carefully done, we now have a compact mass of laminated iron 3 x 3 x 8 inches with a projection, to which we secure the ⅜-inch brass or iron rod, D. A wooden handle, D^2, is drilled to slip over the end of the rod and fastened by means of a screw in the end.

The winding of the solenoid or coil is best done in a lathe, as the heavy copper wire is most difficult to handle. The "former," on which the coil is wound, is made as shown in Fig. 13. It consists of three oblong blocks of wood, each having surface dimensions of 3⅜ x 8 inches, and tapering in thickness so that when the three are placed together the total depth is 3⅜ inches. A glance at Fig. 13 will make this clear. The tapering construction is used so that the center piece, B, may be driven out after the coil is wound, thus collapsing the form. A 12-inch length of ½-inch soft steel or iron rod is centered in the block, B, and prevented from turning therein by the insertion of a 3-16ths-inch pin into a hole drilled through block and rod. Small blocks of wood, F may be

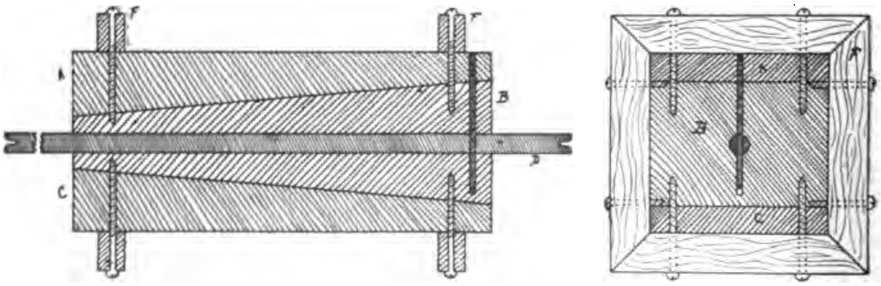
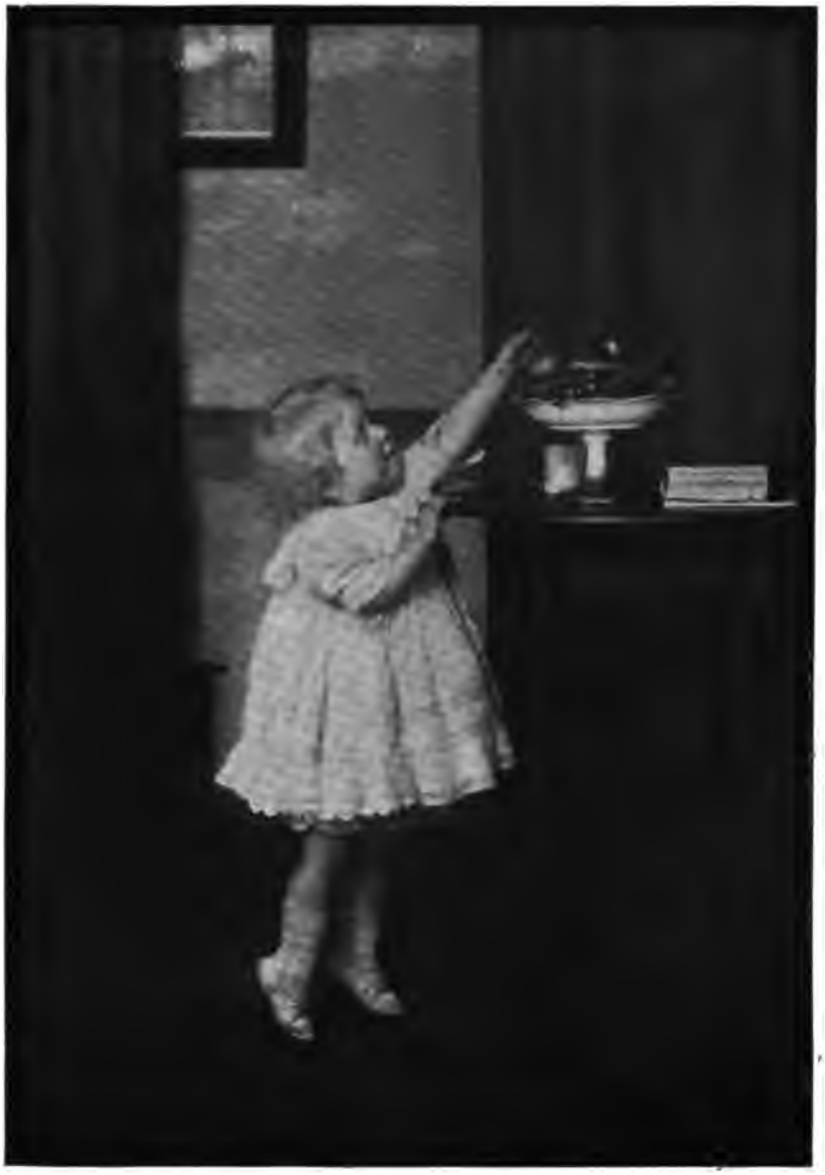


FIG. 13

Stanley Curtis 1910



FORBIDDEN FRUIT
HERMAN ZIESEMER, HAMBURG

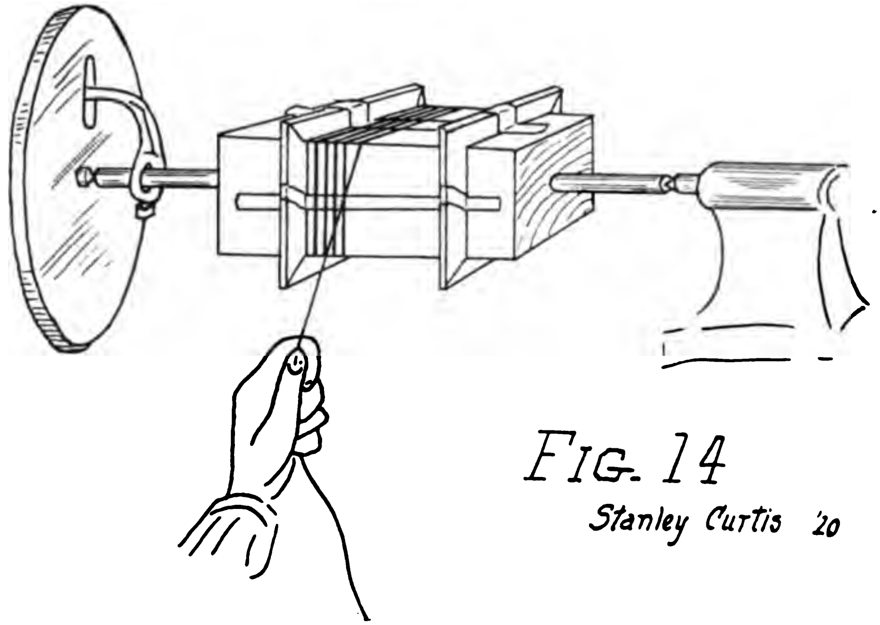


FIG. 14

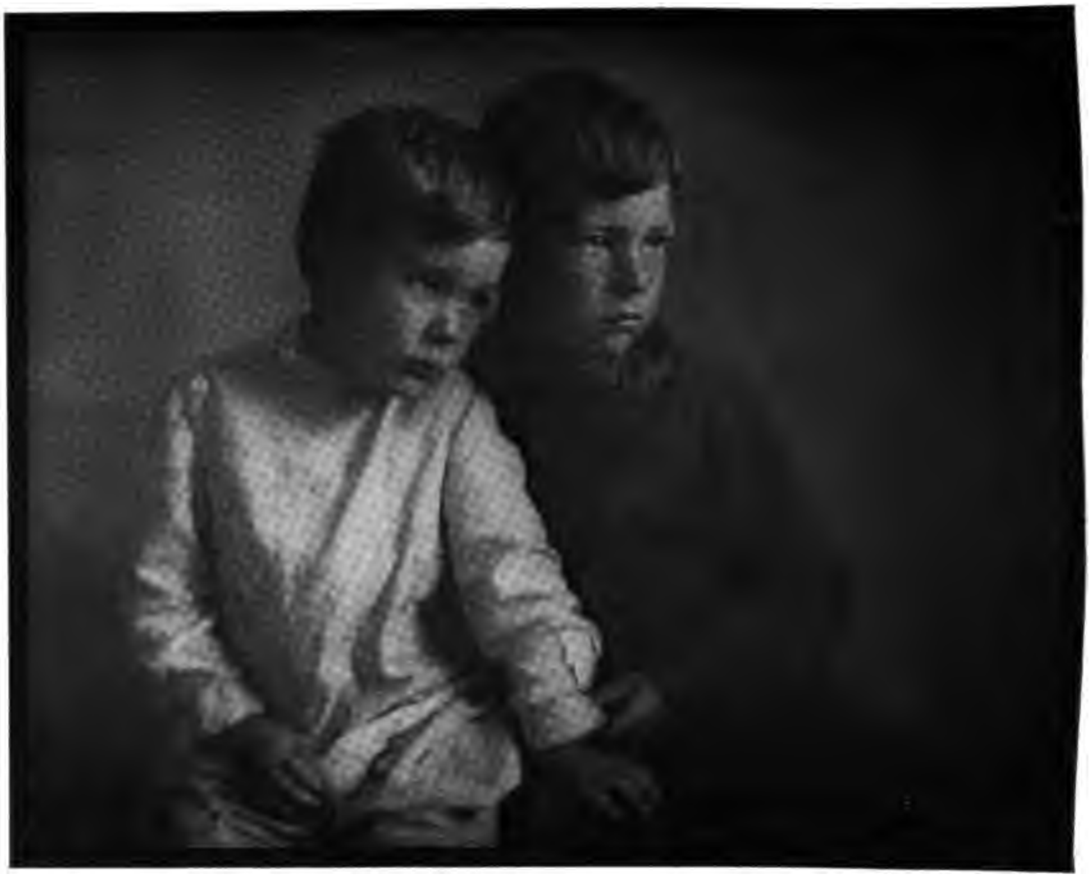
Stanley Curtis '20

fastened by screws to the body of former and spaced six inches apart. These will prevent the turns of wire from separating when the second and third layers are put on.

The former may then be placed between the lathe centers and secured to the face plate by means of a dog, as shown in Fig. 14. A piece of friction tape about 16 inches long should be placed on each of the four sides of the former so that the coil may be held together while being removed from former. The tape will readily adhere to the wood while the winding is being done. About 8 pounds of No. 6 double cotton-covered magnet wire will be required. If carefully wound, thirty-two turns may be put on in each layer, and the winding is three layers deep. The starting end of the coil should be securely fastened, as shown in Fig. 14, by passing it through a notch in one of the retaining blocks, when by tightening the screws, the wire will be firmly clamped. The lathe should be turned in the direction of the arrow and at the slowest speed. The spool of wire is placed on a spindle to the left of the operator, who should wear an old pair of heavy gloves, as otherwise his hands will be burned by the friction of the wire as he guides it on to the former. A small wooden mallet will assist in flattening the turns, especially on the first layer. In winding the second and third layers the operator will have no difficulty in guiding each successive turn into the channel formed by the turns beneath it. This is clearly shown in Fig. 10.

After the winding is finished, the ends of the tape previously mentioned must be brought up tightly over the coil and stuck together. After removing the former from lathe, the center block may be driven out, the former collapsed, and the wire, now in a solid coil, removed ready for taping.

The ordinary cotton tape sold in rolls is most suitable for our purpose. The insulating tape known as "friction tape" should not be used, as it will emit a most disagreeable odor if the coil becomes warm in use. After selecting a width of cotton tape, — the ¾-inch width is just about right, — the end is secured to the coil with shellac varnish, as at A, Fig. 15, and the roll passed through the center of the solenoid, first removing the piece of friction tape at this point. The cotton tape is wound tightly over and through the coil, each turn of tape overlapping its neighbor for about half the width, until the entire mass of wire is neatly covered from end to end, with the starting and finishing ends of wire projecting from their respective corners. The starting and finishing point of the tape will be at the bottom of the coil, when it is in position. The whole layer of tape



BROTHERS
AUTHOR UNKNOWN
First Prize, Monthly Competition

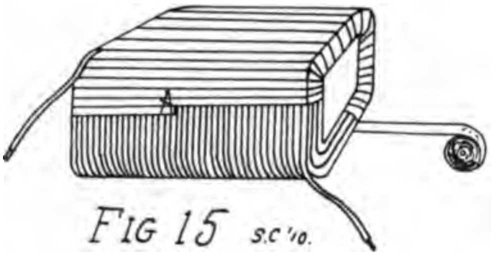


FIG 15 S.C '10.

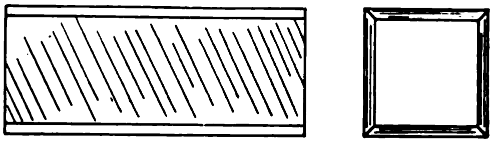


FIG. 16 S.C. '10.

should be given two coats of thin shellac, the first coat being thoroughly dried before the second is put on. A final baking for two hours in an oven is desirable but not absolutely necessary.

While the shellac is drying, the fiber tube which supports the solenoid may be made. Four pieces, each 8 x 3⅜ inches, are cut from a sheet of ⅛-inch fiber and the edges beveled, as shown in Fig. 16, so that when assembled the pieces will form a tube 8 inches long and 3⅜ inches square on the ends.

Before forcing this tube into the solenoid, thick shellac should be applied to the beveled edges of the sheet fiber. When this is dry, the sides of the tube will be firmly cemented together.

The baseboard should be of slate, cut to 8 x 20 inches, and about ¾ inch in thickness. The solenoid is secured to it by means of ⅛ x ¾ inch soft iron strip, bent to the shape shown in Figs. 10 and 11. The method of fastening the supports to the slate is shown in Fig. 10 at G^1. Further description is unnecessary.

The starting and finishing ends of wire are soldered into copper lugs, which are clamped to the copper or brass plates, J, on the base.

The regulating rod, D, passed through a rigid support, E, and may be held at a given position by setscrew, E^1. The support must be good and stiff, as the current has a tendency to pull the iron core into the solenoid, while coil is in operation. This pull is surprisingly powerful, too.

The coil is connected in the circuit in the same manner as a rheostat, and the current is increased by withdrawing the iron core from the solenoid. The core should be *in* when arc is started and gradually drawn out until enough light is obtained.

The above coil will carry 50 amperes safely and give results far superior to rheostats on an alternating current circuit. On a current of high frequency, such as 125 or 133, it will be necessary to pull the core out farther than on a 60-cycle current, for the retarding effect is greater as the frequency increases. Needless to say that this coil *will not* operate on direct current.

The operator who uses a choke coil or transformer on his lamp, will often be annoyed by having the lugs or terminals of the asbestos-covered cable burn off, perhaps in the middle of a reel. This is due to the heating effect of the heavy current, combined with the intense heat of the arc. On nearly all of the new models of arc lamps this mishap is prevented by a solid bronze arm extending back and well away from the arc. To this arm the terminals are fastened. The operator who

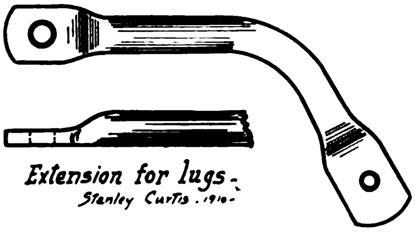


FIG. 17

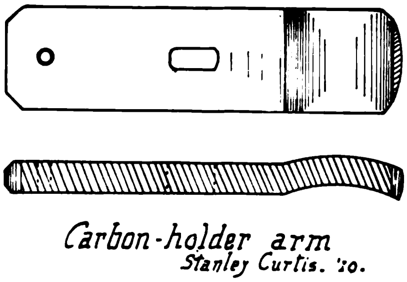


FIG. 18

PORTRAIT **HAROLD A. THURLOW, BOSTON**

Second Prize, Monthly Competition

uses one of the old lamps may improvise an arm of ¼ inch copper rod flattened at either end, as shown in Fig. 17. One end of this is clamped to the lamp terminal and the other extends back for connection to the cable.

Another annoyance to be found on the old lamps is that of having the bronze arm, under which the carbon is clamped, break, thereby dropping the carbon out of the lamp. This may be prevented by using an arm of cold-rolled steel forged to the shape shown in Fig. 18. This will stand the heat and expand without cracking.

As already mentioned, direct current gives the ideal light for projection work, but on account of the cheapness of transmission, alternating current is the only kind used in many places. The "happy medium," and, in the hands of an intelligent operator, the ideal system, is found by the use of a "Mercury Arc Rectifier," a very simple diagram of which is given in Plate 3, Fig. 3. For sake of simplicity, the starting coils, magnets, cut-outs, etc., have been omitted, as space would hardly permit of a just description.

The instrument is supplied with alternating current through the switch, S, from which it goes to the step-down or auto-transformer, T; the alternating current then passes to the rectifier, B, which changes it into direct current for use at the arc. By simply closing the switch and touching the carbons of the lamp together the rectifier is started and the lamp supplied with a steady direct current of just the proper voltage without the use of rheostats.

These rectifiers are very economical in operation and, with proper use, will not get out of order.

(To be continued)

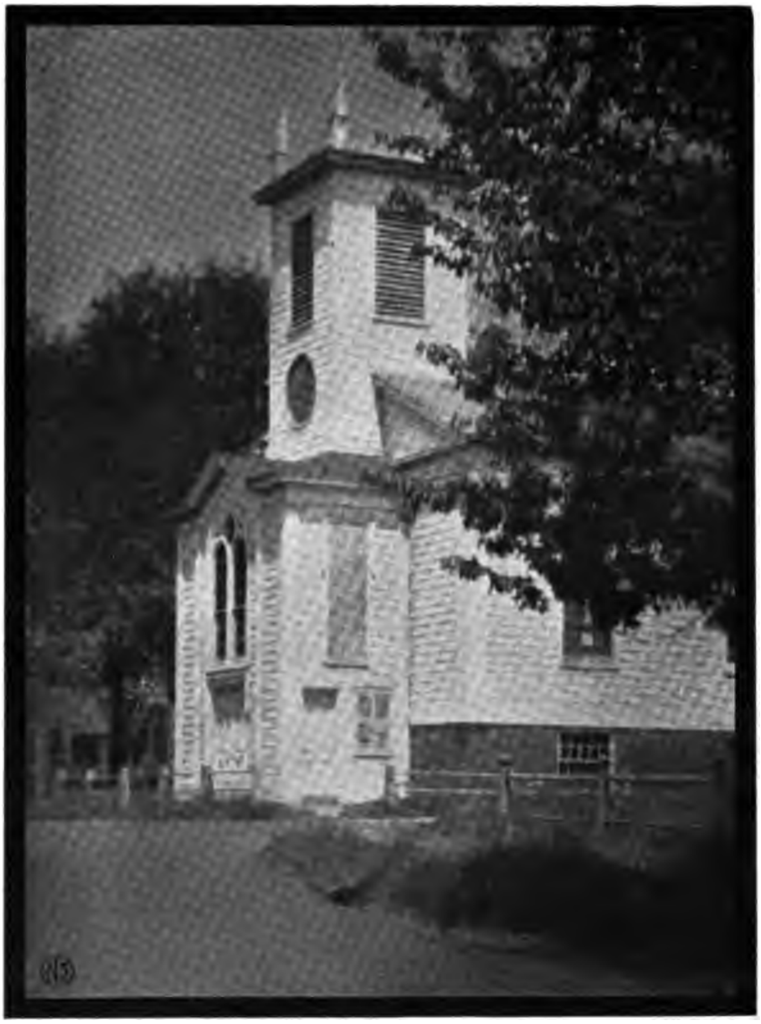
WOODLAND POND WM. S. DAVIS, ORIENT

PINHOLE PHOTOGRAPHY

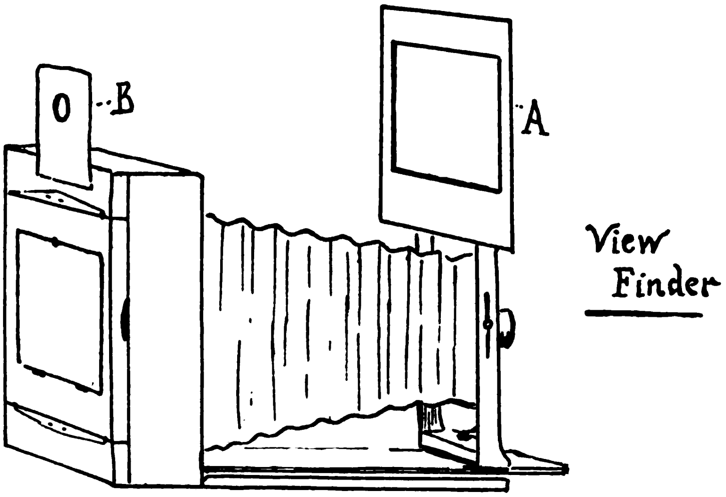
WILLIAM S. DAVIS

THE subject of "pinhole" photography having been referred to at various times in the magazines for some years past might seem, by the more experienced workers, to have been exhausted; but I am going to bring it up again, and trust some of the information given as the result of personal experience may be of value, especially to those new recruits who are always joining the ranks and look to recent issues of the magazines for information. For their benefit I shall go a little more carefully into the practical details of this branch of the work, assuming the reader to be already familiar with the fact that rays of light after passing through a minute opening, such as may be produced by a pin or needle, will come to a sufficiently sharp focus to produce an image of objects in front of the opening. This was known many years ago, but in "the good old days" when microscopic definition for all subjects was practically an inflexible rule, it was considered simply an optical curiosity; but of late years ideals have changed and the artistic possibilities of the "pinhole" as a substitute for a lens for certain subjects is an established fact, it being especially effective on those scenes which are best represented by broad masses of light and shade.

The old saying "there is no loss without some gain" may with equal truth be transposed; for however desirable a thing may be, there generally seems to be some loss connected with it, so, before going any farther, it may be as well to consider both the advantages and disadvantages of pinhole photography.



THE MEETING HOUSE
WM. S. DAVIS, ORIENT



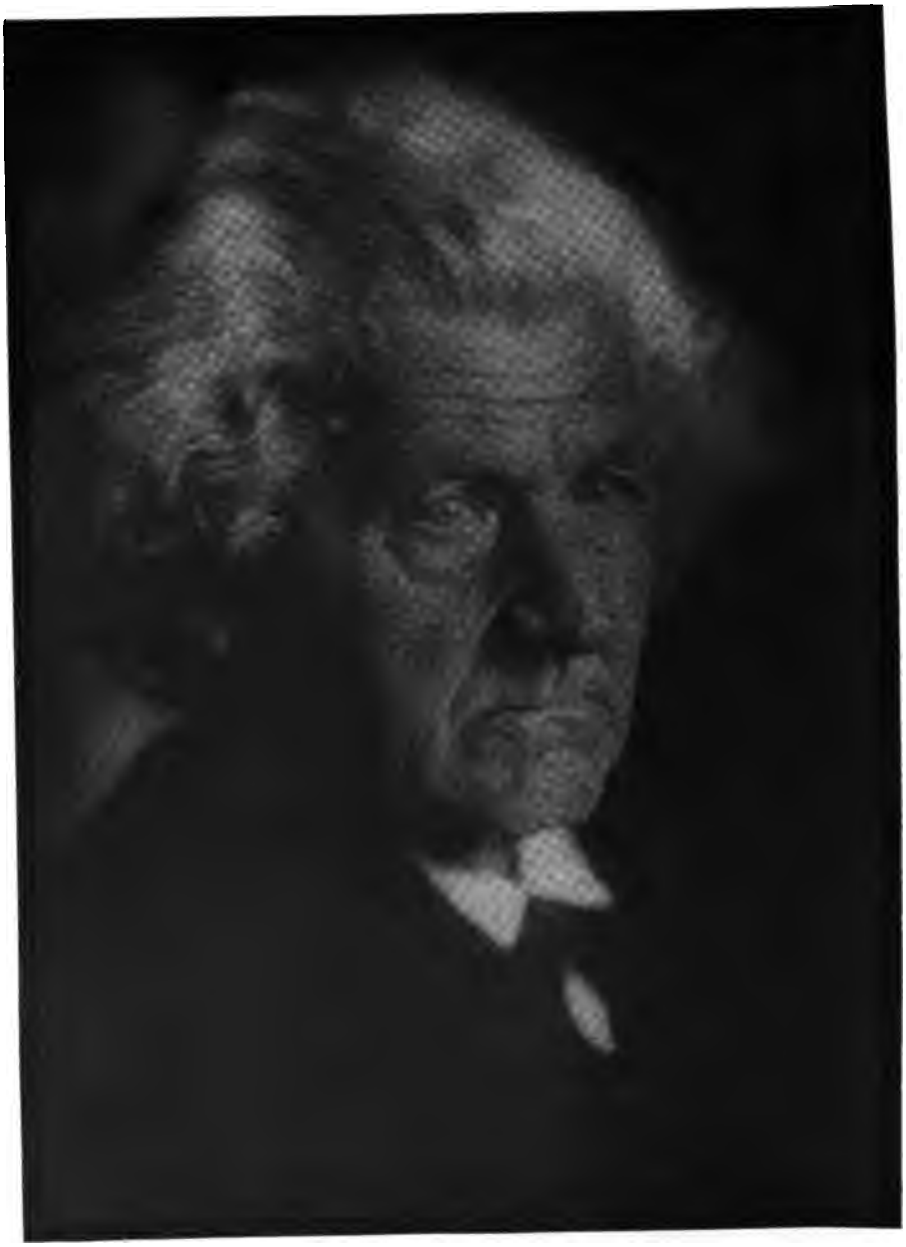
The principal advantage claimed by those familiar with the results is the peculiar quality of definition, which is remarkable for its softness and delicacy, without the blurred effect often seen in photographs made with a lens when diffusion has been obtained by throwing the objective out of focus. The focus (if one may call it such) of a pinhole being practically universal, the image is probably a nearer approach to that of the human eye than is ordinarily the case with a lens. At any rate a good pinhole picture of fairly large size when held a proper distance from the eyes has a very naturalistic effect.

Another point, which I do not think has been given sufficient prominence, is the power it gives one to adjust the size of the image without moving the camera, possessing in this respect much of the flexibility of the "telephoto" lens; for while there is theoretically a given distance from the plate at which every pinhole of a given size will give the best definition, in practice the same sized hole may be used at almost any reasonable distance with satisfactory results, making it possible to secure an object at very close range, requiring a wide angle of one hundred degrees, or some particular bit in the distance which would only include an angle of ten to fifteen degrees, the size of the image being in direct proportion to the distance between the opening and sensitive plate, the same as an ordinary lens. So at, say, fifteen inches the image is just three times the linear size that it is at five inches.

Taking advantage of this fact we have only to select our view from the standpoint which will make the most desirable composition, then rack out the camera front until the amount selected fills the plate. With a lens one must either move the camera to regulate the size of image (which alters the composition of the foreground), or, in the case of distant objects, depend upon enlarging a portion of the negative afterwards. Of course a battery of lenses of various focal lengths will accomplish the desired results, but few amateurs have a number of lenses, even though they possess a camera with long-bellows extension.

Of the disadvantages attending the use of the pinhole the greatest is undoubtedly the length of exposure required, ranging from several seconds to as many minutes, according to circumstances, averaging for the majority of subjects from one half to one minute; so for this reason its use must be confined principally to landscapes and architectural views without moving objects.

Owing to the small amount of light which reaches the ground glass it is somewhat difficult to locate the image; but that may easily be overcome, as will be explained later.



THE OLD PARSON
GRETE BACK, DRESDEN-BLASEWITZ
Third Prize, Monthly Competition

Some would also object to the fact that the definition being universal, as previously mentioned, makes it impossible to localize the definition on any particular portion of the subject; but this may either be a fault or a virtue according to the class of subject one is dealing with, and the photographer with artistic feeling who knows the effect he wishes to produce and the peculiar properties of both lenses and pinholes will select whichever is most suitable for the work in hand. In wide angle architectural work, for example, the universal focus of a pinhole is a decided convenience, for a swing-back must be used to bring the vertical lines of a building true in the picture and it is some satisfaction to know that every part will be in uniform focus without the trouble of equalizing the definition, made necessary when a lens is used on account of the sensitive plate not being parallel with front of camera.

Now, having stated fairly the main points on both sides, we will consider the practical details of making and using a pinhole attachment.

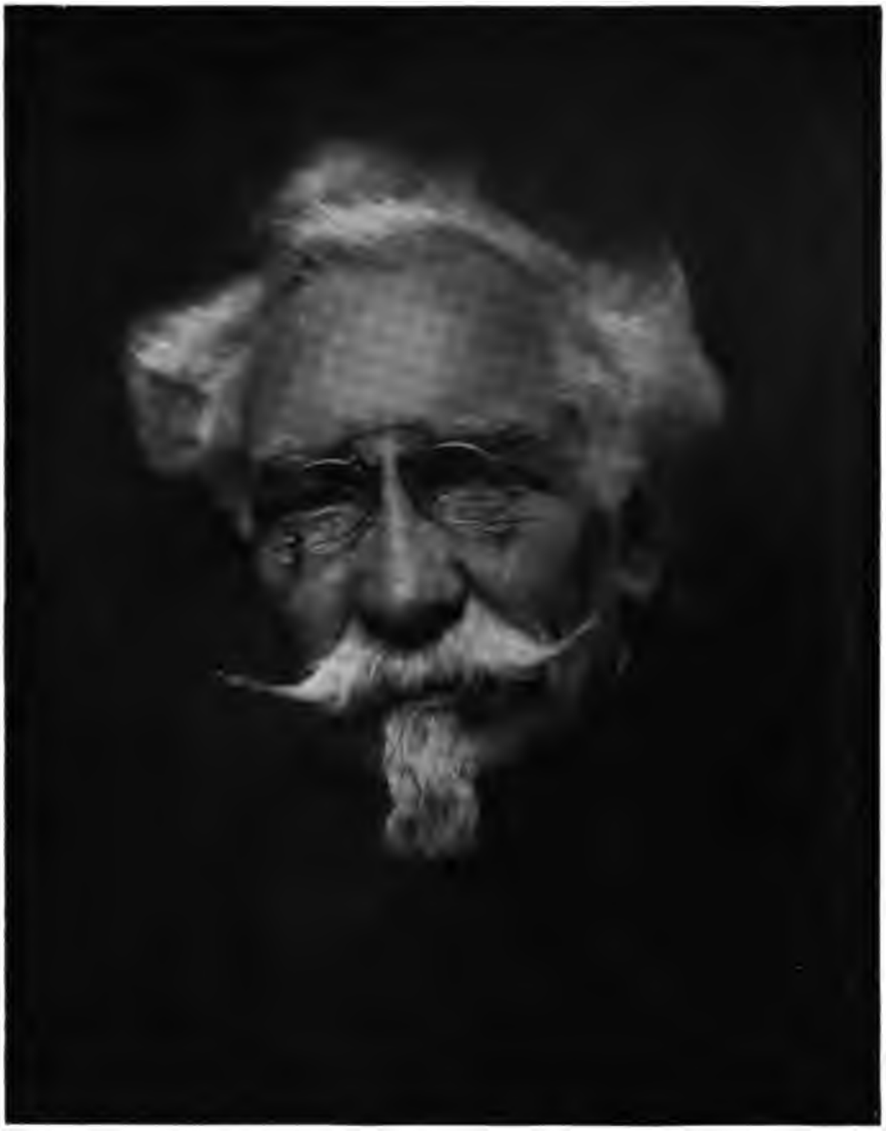
If the camera has a removable lens board, the best way is to make another board upon which to mount the "pinhole," so that the attachment may be easily substituted when required; but when the lens is mounted directly on the camera front, the simplest method is to cut the material in which the hole has been made so it will just fit inside the lens tube, and unscrew the lenses when it is used. Whichever method is adopted, great care must be taken that no stray light enters the camera, otherwise good, clear negatives cannot be obtained. This is even more important than is ordinarily the case, as owing to the feeble illumination and consequent length of exposure necessary the smallest amount of diffused light inside the camera would have more time to act upon the plate and produce a general grayness over the image.

Various kinds of material may be used in which to make the aperture, the only thing necessary being to see that the edge of the opening is thin and free from any burr. A piece of hard rubber might be used, only care would have to be taken not to split it while making the hole, also to ream out the opening when made with a "countersink" or the point of a fair-sized drill to make the edge thin enough, otherwise the rays of light after entering the opening would not have a chance to cross and spread out sufficiently to produce the image. On the whole thin sheet metal (about 1-40th inch thick), such as brass or copper, is most suitable for the purpose. To make the opening in such material, proceed as follows: Lay a piece of the metal (say, 1 inch square) on the butt end of a block of wood, and make a dent in the center with the rounded end of some instrument, such as an iron rod, a quarter of an inch or so in diameter. Now turn the plate over and file the embossed spot until it is very thin; return the plate to the wood block and punch the desired opening through the thin spot with an ordinary needle, — for while called a "pinhole" the opening is really made with a needle. The burr left by the needle must be carefully removed by rubbing on fine emery paper or stone.

For all around use a number 8 needle is best, making a hole about 1-44th of an inch in diameter, which will give good results up to 14 or 15 inches extension from the plate. On account of diffraction there is nothing to be gained in definition by using a smaller needle hole; but for some subjects, or where large plates and a longer bellows extension is generally employed, a larger size might be used (say, number 6 or even 3), which would of course reduce the time of exposure.

Although in actual practice it does not appear to be absolutely necessary to blacken the metal plate, it is well to do so to be on the safe side; and inasmuch as paint or matt varnish cannot be used without danger of partly filling up the opening, a chemical blackener should be employed, a good one for brass or copper being the following: —

Water	1 ounce
Copper sulphate	1 dram
Strong aqua ammonia	3 drams



PORTRAIT
H. BERSSENBRUGGE, ROTTERDAM
Honorable Mention, Monthly Competition

Clean the metal carefully until bright, place in the solution for fifteen or twenty minutes, then rinse in water and heat over a gas or lamp flame until dry. Copper only shows the effect of the chemicals after heating.

In mounting the pinhole plate on a front board, an opening about half an inch in diameter should first be made in the center of the board, then a piece of felt or velvet the size of the plate, with a hole corresponding in size to that in the board, is glued to the latter, and the pinhole plate laid over all and fastened tightly in place. If it is not convenient to drill screw holes in the plate, four screws with large round heads may be set around the edges close enough for the heads to overlap and obtain a grip on the plate.

A shutter or cap is not needed, as the exposures are long enough to draw the dark slide of the holder and replace at the proper time without causing blurring; although, if preferred, exposures may be made by using a corner of the focusing cloth over the front.

In using the apparatus the only difficulty experienced is in trying to locate the image on the focusing screen; and the best way out of it is not to consult the screen at all, but to use a simple view meter such as is shown in the accompanying sketch. The frames A and B can be made of cardboard, if no better material is handy. The opening in A should be the exact size of the plates in use, while that in B need only be ½ to ¾ of an inch in diameter. When in position the sight-hole must center with the opening in A, so when the camera front is moved in or out the amount of view included on the plate can always be seen. As the best mode of attaching the frames depends upon the material they are made of and style of camera, I will leave that to the reader.

As exposure is governed, the same as with a lens, by the diameter of the opening through which the light has to pass, and its distance from the sensitive plate, the most accurate way of determining the correct exposure is to find out the "f." value of the pinhole opening at various distances from the plate. Taking a number 8 needle hole as the one generally employed, we find its diameter (1-44th inch) is approximately f. 256 at 6 inches from the plate, f. 383 at 9, and f. 512 at 12 inches, the ratio of exposure being as 1–2–4, respectively. Owing, however, to the fact that such small stops are not employed in lenses the most convenient way of finding the exposure in a given case, especially when an exposure meter is used, is to find the time required with a stop which admits sixty times the light, and then give minutes instead of seconds. Any one who adopts this method will find the following table very convenient:—

EXPOSURE TABLE FOR USE WITH NO. 8 NEEDLE HOLE

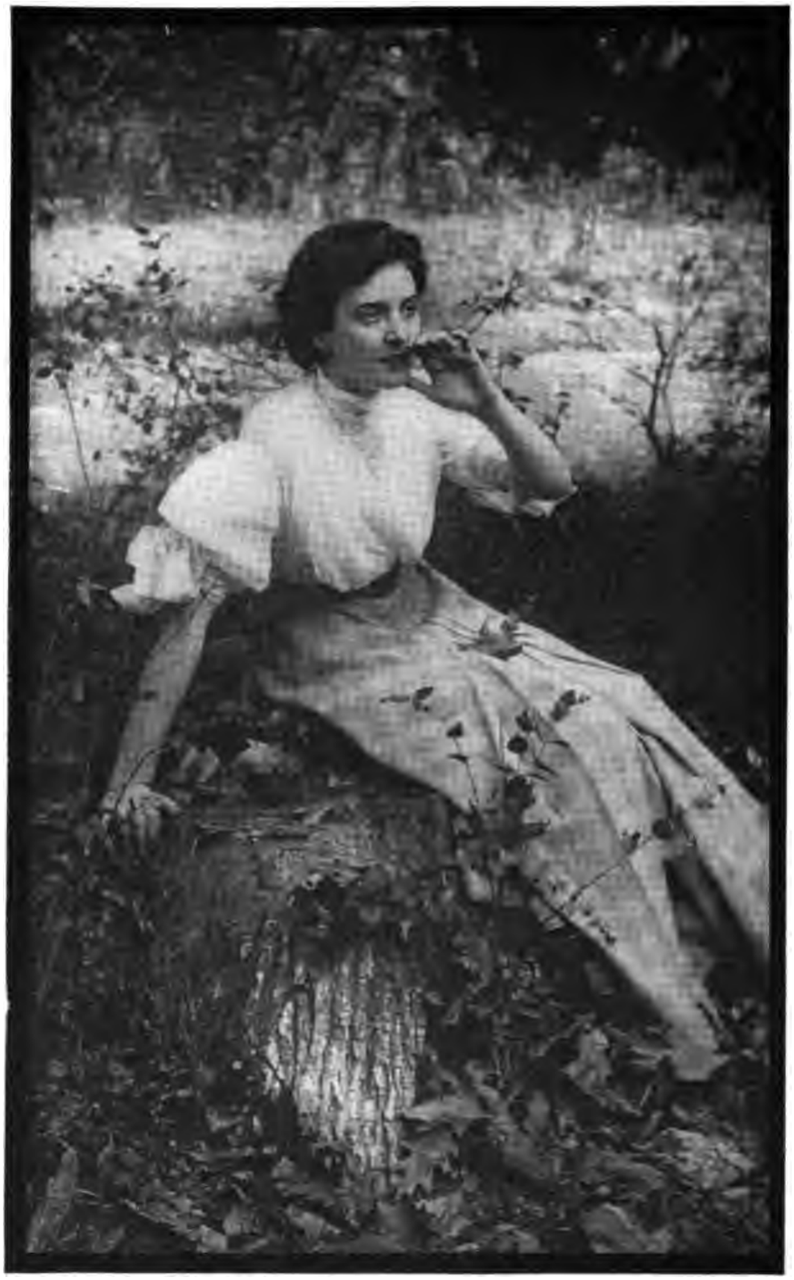
At 6 inches from plate.	Find exp. required for	f. 32
At 9 inches from plate.	" " " "	f. 45
At 12 inches from plate.	" " " "	f. 64
At 15 inches from plate.	" " " "	f. 78
At 18 inches from plate.	" " " "	f. 90

Give minutes where exposure meter indicates seconds.

A number 6 needle hole at same distance from plate requires two thirds, and a number 3 one third the exposure of number 8 needle hole.

Development does not call for special comment, for with correct exposure a good negative should be obtained by the use of normal solutions. Sometimes, however, a slight grayness may be apparent over the finer details, probably caused by a diffusion or refraction of the pencils of light as they come in contact with the sensitive plate, but this is seldom sufficient to be objectionable, although if desired the negative may be cleared with a weak hypo and ferricyanide reducer, or prevented by adding a little bromide to the developer.

The quality of a pinhole picture will, as a rule, be preserved best by printing on rough paper. Very effective enlargements can also be obtained when desired.



PORTRAIT
MRS. GEO. L. GILBERT, BURLINGTON
Honorable Mention, Monthly Competition

EDITORIAL COMMENT

THE LONDON SALON OF PHOTOGRAPHY

WE have in type a review of the exhibition of this name which has just closed in London, by our esteemed friend H. Snowden Ward. It was our intention to publish this article in this issue, but unfortunately the blocks with which the article was to be illustrated are at this writing still on the Atlantic Ocean, and we must, therefore, postpone the article until next month. The London Salon is, in a way, the successor to the annual salons of the Linked Ring, which have been temporarily discontinued. We will not here refer to the causes leading to the organization of this new exhibition, which our readers will find fully treated in Mr. Ward's article when it appears. It is sufficient to say that in spite of the refusal to participate by a number of well-known photographers, the show is probably the finest and strongest show that has ever been held in England. It is interesting to note that several Americans are among the original members of the London Salon, including C. Yarnall Abbott, F. Benedict Herzog, Gertrude Käsebier, F. Austin Lidbury, and W. H. Porterfield. Frank Eugene, who may also be classed as an American, although for many years a resident in Munich, is also a foreign member. It will be noted that several of these are former members of the Photo Secession.

It is unfortunate that the American collection which was exhibited at Budapest, and which was shipped to London for entry in the Salon, was so delayed in transit that it did not arrive until after the exhibition was open. Arrangements have been made, however, to exhibit this collection as a whole in the Little Gallery of the *Amateur Photographer*, which will allow the London art public to see a modern and representative collection of independent American photography.

OUR MONTHLY COMPETITION

THE first prize in our Portrait Competition has been awarded to a print whose maker, we regret to say, we have not been able to identify. The wrapper was unfortunately destroyed, and the only marks of identification upon the print are two initials. The maker is, therefore, requested to communicate with us, with proofs of his identity. The print is excellent in grouping and technique, but its principal charm lies in the dreamy and wistful expression of the two boys. The second prize was awarded to "Portrait," by Harold A. Thurlow, of Boston. Mr. Thurlow is, we believe, a decorator by profession, and his print certainly shows a masterly space arrangement and excellent balance of light and shade. It is essentially decorative in treatment, and the emphatic black rim of the hat makes the picture. It is needless to say that this strong note, if not correctly handled, would have been as detrimental to the composition as it now is beneficial. The third prize was awarded to "The Old Parson," by Grete Back, of Dresden, one of the most progressive of the younger German professional photographers. Miss Back's comprehension of character is one of her strong

AFTER THE SNOW-STORM R. C. BURCKES, SOMERVILLE

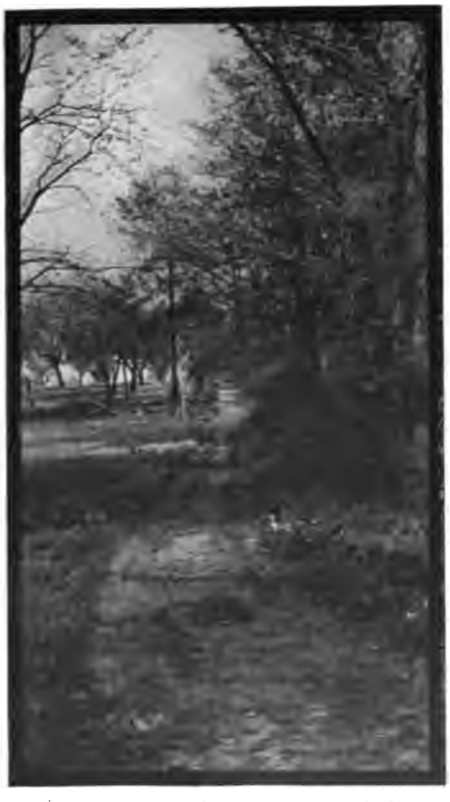
traits, and she has most sympathetically rendered this strong and rugged face. The reproduction has unfortunately lost some of the values in the darks, which are very difficult to retain in a half-tone reproduction. We have also reproduced two of the honorable mention pictures, by H. Berssenbrugge of Rotterdam, and Mrs. George L. Gilbert. The former is another extremely successful study of strong character, but again the darks of the print have suffered in the making of the block. Mrs. Gilbert's outdoor portrait is a very successful picture, principally because of the unconscious grace of the subject. The composition would be rather stronger were the stump in the foreground a little darker in tone, so as to give a more triangular form to the mass of the figure. Other honorable mentions were awarded as follows: "Portrait," by G. Ahlman; "Portrait of Miss B," by F. E. Bronson; "Stella," by Nick Bruehl; "All Dressed Up," by C. F. Clarke; "Barbara," by Henry Collins; "The Puritan's Daughter," by Edward Dickson; "Portrait," by C. R. Dundie; "Portrait of a Man," by A. B. Hargett; "Portrait," by David Peterson; "Leona," by Harry G. Phister; "Uncle David," by Dr. Fred S. Piper; "Portrait," by C. E. Pleas; "Portrait," by H. E. Stout; "Portrait of Dr. R. H. Lowie," by Gerald Tushak; "John," by U. L. Upson; "Soldier Boy," by Edward H. Weston; "Mrs. D.," by Harry D. Williar; "Portrait," by Mrs. A. C. Witherow; "Portrait of Winifred G," by Frank Wolcott.

The best way to obtain a reputation is to advertise
The best way to advance art is to do good work in silence
After you are dead the world will decide whom to remember

OUR PORTFOLIO.

Prints made by readers will be criticized in this department; none by mail. Prints should be addressed to Frank R. Fraprie, 221 Columbus Ave., Boston, Mass., and MUST be marked "For Portfolio" on back, whether sent for this department only, or for the monthly competitions as well. Only one print by any contributor can be criticised each month. An asterisk is prefixed to the criticism of reproduced prints.

*711. **W. A. Payne.**—"The Orchard Lane." This is an excellent landscape which shows good arrangement and excellent perspective. We would prefer to see the road a little more to one side, instead of being so nearly in the center of the print. You have, in our opinion, focused on too near a point, having the extreme foreground very sharp. If you had made the middle distance the sharpest plane, it would have been more as the eye sees things. The technical work is excellent.



711. THE ORCHARD LANE. WILLIAM A. PAYNE

712. **E. V. Powers.** — "The Parting of the Ways." Your title is not well carried out by the print, as the roads are very inconspicuous in the picture; in fact, at a casual glance, one sees but one road. This is caused by the incorrect exposure and development, which have resulted in a very hard and contrasty negative, yielding prints with jet black shadows and chalky whites. Give a little more exposure, and use a softer working developer, and you will like your prints better.

713. **Myron R. Clark.** — "Old Ocean." As you pointed your camera perpendicularly at the wave front, you have a print composed wholly of horizontal lines. These horizontals have no evident relation with each other, and there is no line in any other direction to break the monotony. The surf itself is not high enough to make a picture, and your camera was so far from the front of the breakers that they look small and insignificant. A flat beach is a poor place to photograph the ocean. On a rocky, abrupt shore you can get nearer the waves, and get a much more striking effect. If you had pointed your camera along the beach, instead of across it, you would have got a picture with better lines.

714. **I. C. Spencer.** — "Ready to Return Home." This print shows, as is often the case with snow scenes, over-exposure and consequent under-development. The print seems to have plenty of detail, but the negative is thin, so that vigor cannot be obtained. This is a proper subject for intensification, after which you will get a much more brilliant print.

715. **P. H. Irving.** — "The Farmer's Side Line." Your print of an old woman feeding a large flock of various kinds of poultry, makes a good record of much interest to those concerned. Your exposure seems to be about right, but the print is rather contrasty, perhaps because it is printed on a contrasty grade of paper.

716. **J. W. A. Cairns.** — "Girl Reading." The pose of your sitter is graceful, and the work in some respects is excellent. The print, however, seems to be rather flat, and dull. Apparently you have too thin a negative, and we think that intensification might result in a better print. The distribution of the light is not the best, as the whole emphasis is thrown on the white shirt waist and the magazine, with the face in deep shadow. As one is more interested in the face than in the clothing, it is better to employ a lighting which will give at least equal prominence to the features.

717. **Floyd A. Brown.** — "A Quiet Summer Stream." This is a pretty little landscape, and shows pleasing masses. In our opinion, however, it is rather too diffused in focus for so small a print, which one naturally looks at close to the eye. If you had made a sharper print originally, and enlarged it to 8 x 10, getting this quality, you would have a very good picture. We would suggest that the whole foreground, both right and left sides, would be strengthened by darkening up, thereby carrying the attention through to the white spot on the bank of the stream. A trifle could be trimmed

from the top edge, as the upper portion of the trees is very heavy and black.

*718. J. A. Bourquin. — "Junior." This print of a little boy spreading out his fruit on the old stump, is a pleasing outdoor portrait, and could hardly be improved under the conditions. The print, however, is of an unpleasant color and quality, and we do not think you have made the best possible from your negative.

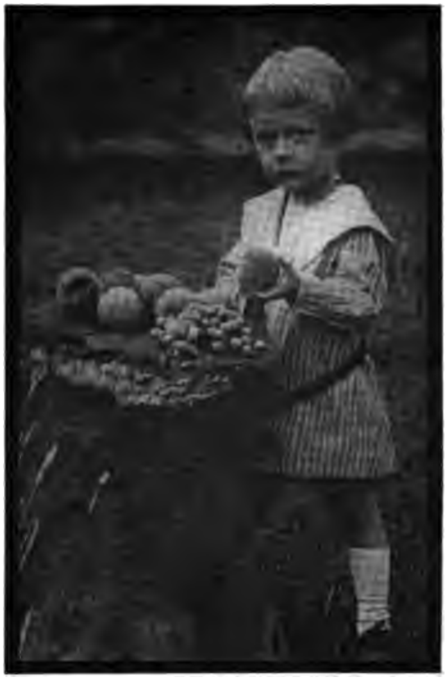
719. Alfred Locker. — "Two Swans." Your camera was too close to your birds, and being of short focus, they are absurdly magnified, in relation to the rest of the landscape. Comparing them with the little girl on the bank, apparently just beyond them, they look almost as large as steamboats. The mass of out-of-focus grass in the lower right-hand corner does not improve the picture, and we would say that your exposure was rather short, resulting in forced development, and chalky whites.

720. C. W. Cramer. — We should not regard this as a successful picture of the baby, because of the wide-open mouth. While a smile on a baby is pleasing, the picture of one with his mouth as wide open as this is rather laughable than successful. The enormous black chair, absolutely without detail, and the very much out-of-focus background, also cause us to regard this print as extremely uninteresting.

721. George T. Spencer. — "Baby's Sore Foot." This picture shows extreme under-exposure, and is nothing but a mass of chalky whites and jet black shadows. It is useless to waste a film with such inadequate exposure.

*722. Charles R. Wenzel. — "Strolling." Your print shows good exposure, and a fairly good handling of the lines of the landscape. The figure, however, is in the wrong place, and spoils the whole effect of the composition. You have two trees of approximately the same size, and the same distance from the camera. You have placed your figure on this same line, and almost exactly dividing the space between the trees and the other edge of the print, especially after you have trimmed off the defective margin of one half inch. The result is that you have three objects of equal importance, almost equally spaced, vying for attention. If you had placed your woman a hundred feet back down the road, or leaning against one of the tree trunks, the composition would have held together much better.

723. George T. Gillette. — Your unnamed landscape is excellently exposed and printed. In composition, however, it has a defect. You have shown the fork of two roads, with one diverging to the right, the other to the left. The eye hesitates confused, and with the two equal attractions, the picture has lost all unity. With these scattered trees so well lighted, there was certainly material at this spot for a picture.



718. JUNIOR J. A. BOURQUIN

727. IN THE WOODS—WINTER F. G. HANNA

722. STROLLING CHAS. R. WENZELL

724. S. J. Hammill. — "Landscape." You have in this landscape a pleasing line composition, a diagonal cutting straight through the picture, and intersected by another, making three triangles. The triangles themselves, however, are so monotonous, that the picture cannot be called successful. It is simply a pretty spot, which we tire of at a single glance. The exposure was not quite sufficient, resulting in a baldheaded sky, and jet black shadows.

725. Florence S. Cairns. — "Wild Flowers." This grouping of several species of tall wild flowers crowded into a vase is not particularly pleasing. The flowers have lost the charm of color, have also lost the beauty of detail, by reduction in size and incorrect exposure, and the result is in no way commendable.

726. E. T. Goldsmith. — "Picking Daisies." The idea of this picture, the children in the flower bed, is attractive, but it seems to us that you did not choose the best point of view. The flowers growing up in front of their faces make an unpleasant spotty effect. If you had moved your camera around to the side, to get a profile view of the children leaning over the flowers, and had given a little more exposure, we think you might have made a very attractive picture.

*727. F. G. Hanna. — "In the Woods — Winter." Like many of your snow pictures, this shows a very attractive softness in the shadows, and sufficient detail in the snow to give quality. The arrangement is extremely interesting, and we hardly see how you could have improved your composition at this particular spot.

728. W. N. Maule. — "A Peaceful Pond." You have chosen a rather picturesque locality, but to our mind the picture is much marred by the jumble of rocks in the foreground under the dam, which also is not a picturesque accessory, with its long straight line cutting across the picture. If you had gone out on the rocks, close to the dam, and photographed the pond with its wooded banks and reflections in the water, it seems to us that a more artistic print would have resulted. The exposure seems to be satisfactory, and the print is very good.

729. George A. Nelson. — "In Winter's Chain." Your print is too contrasty. The snow is represented by pure white paper without a trace of detail, and your shadows are too dense and black. The lighting, with uniform gray clouds, was not favorable, and you have a very monotonous picture, which does not even make an interesting record.

730. May Hammond. — "Playing with the Flags." Your children are too evidently posed to make the most interesting picture. This printing shows clearly the necessity of using an orthochromatic plate, as the blue of the flag is not rendered in its true value. More time would have given better values in the shadows, and also have helped to reduce the comparative over-exposure of the blue, which is intensified by over-development.

731. Thomas J. Mathews. — "The Lowing Herd." A herd of cows in a field is a difficult subject to get artistically. Your group here is not especially interesting, and some of the animals show distinct evidence of motion. The exposure is satisfactory.

732. W. A. Seyd. — Your print of a woodland landscape has no particular character, and owing to the even illumination under the trees, the water does not separate itself from its banks. There is no particular center of interest in the picture, and the lines have no importance except for the verticals of the trees. The exposure is apparently a little bit short.

*733. Henry A. Kremling.—"A Cotton Picker." This is an excellent record photograph, and would make a good post-card subject. You should have got the whole of his foot in the picture for this purpose, but otherwise the work could not be improved.

734. Leo Schaffer. — Your landscape print has a nobly flowing line on the tops of the trees, and good cloud rendering, but the lower portion of the picture does not pull together with the upper part, so that the result is unpleasing. In printing in your clouds you have made a bad botch of the upper lines of the trees. The landscape portion shows marked signs of under-exposure and over-development.

735. M. L. McNeil. — "Sweet Sixteen." This home portrait is badly arranged in several respects. In the first place, the background is far too spotty, and its spottiness is accentuated by the under-exposure and over-development which you have given, resulting in chalky white high lights and jet black shadows. There is no reason

for the vignetting of this pure white waist into absolutely jet black vacuum at the bottom of the print. If you would trim the print off at the waist line instead of vignetting, you would get a very much more satisfactory result.

736. **Charles W. Weir.** — "The Abandoned Factory." This is an excellent technical print, a first-class record, which could hardly be improved. It shows the plant excellently, has fine clouds, and not too much foreground.

*737. **Hans A. Erickson.** — "The Brook." This is a very pleasing picture, and the detail in the foreground, although a trifle complex, adds to the beauty of the print. The composition, we think, might be improved. As it stands now, there are two strong lines in the shape of a St. Andrew's cross intersecting almost at the middle of the picture. If you had swung your camera a trifle, so as to cut off a little from the right side, and add it to the left, we think the arrangement would have been much better, but as it is the print is well worth enlarging.

738. **J. Beckwith.** — "The Joy Rider." It is possible that an enlargement of this print might be acceptable in some competitions, but it seems to us that you would need a better negative to make a satisfactory print. This is very much under-exposed, and full of harsh contrasts, black shadows, and chalky whites. It also does not show enough of the automobile to be really satisfactory.

739. **J. Lowenstein.** — "In Thought." Your print has a very unpleasant olive green color, probably due to over-development or insufficient bromide. The negative is rather flat, and as the white edges are perfectly clean, showing no fogging, you probably have a thin under-exposed negative, which can be helped by intensification.

740. **T. E. Harper.** — "In the Heart of Nature." This print is apparently fogged, and the shadows are jet black. We would suggest under-exposure and forced development as the result. The boat with the three people exactly in the center of the picture is in the weakest possible spot, and makes a very ineffective composition.

741. **Frank E. Menefee.** — "His First Picture." While the exposure on this print seems to have been satisfactory, the camera was held too low, and the baby's head allowed to tilt back too far to make a wholly satisfactory result. It would have been much better to have the person holding the baby sitting down, thereby bringing the camera above the level of the face, rather than below it.

742. **Carl Krebs.** — "Sheep." This is a rather interesting composition, but for some reason or other the print is flat, weak, and uninteresting. The horizontal lines of the fence in the background are too stiff, and the unimportant hay stack occupies too great an area in the print.

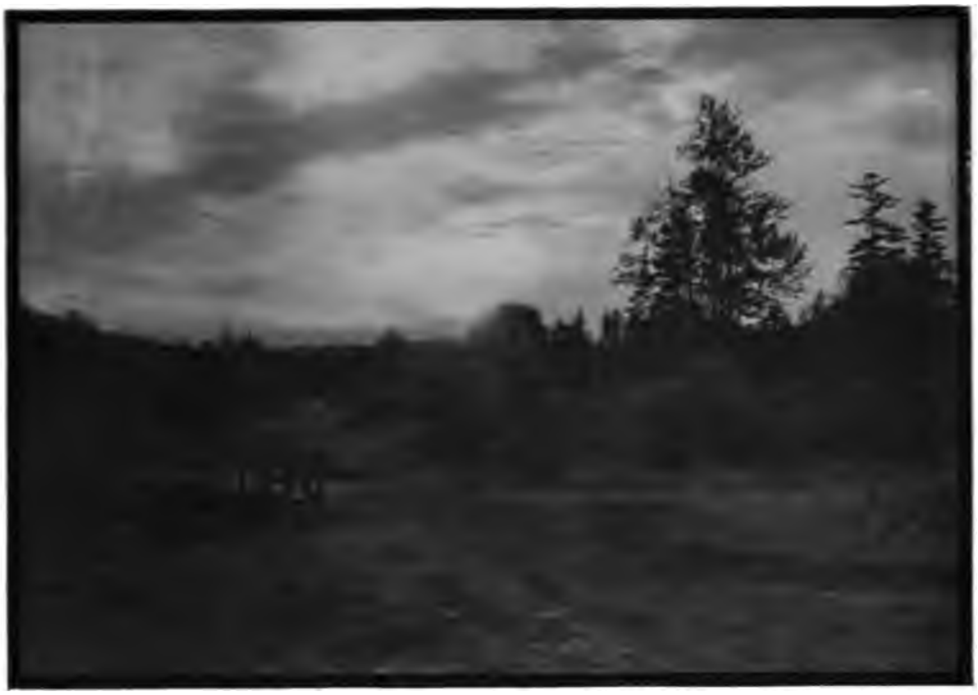
743. **J. B. Corrie.** — "A Promising Fry." This picture of a hen is technically good, except for the confused background, which should have been avoided, but from a fancier's point of view the pose is not satisfactory, as the head is too depressed. Try to get your birds in an upright position, showing more life and interest. There is no merit in giving 1-1500 of a second exposure when the conditions do not demand it. An actual 1-100 would have been sufficient in this case.

744. **J. A. Mazza.** — You did not choose your view-point for photographing this house as well as you might have. If you had moved your camera even a foot or two to the right, the telegraph pole would have been eliminated from the picture. You have too much foreground, and thereby have cut off the top of the house. Had you lifted the rising front of your camera, this fault would have been obviated. Although the light was good, your print is flat, gray, and uninteresting, showing under-exposure in the shadows.

745. **Frank E. Cole.** — Considering that your subjects were sitting in the shade in dense woodland, you have a fairly good record photograph here, which should please the subjects. The background is too spotty and confused to be satisfactory.

746. **C. J. Lofton.** — "Two of a Kind." This picture, made with a duplicator, shows some defects. The exposure on one half seems to have been longer than on the other, with a consequent difference in density between the two portions. The camera seems to have been moved slightly between exposures causing double exposure in the center, and the duplicator is apparently a trifle too wide, which causes a dark streak through the center of the print.

733. COTTON PICKER HENRY A. KREMLING



751. SUNSET CHAS. S. ROULO

The merest trifle should be cut off the straight edge, thereby allowing the overlapping portion to get a little more exposure.

747. John Keller. — This landscape is very uninteresting. In the first place your print is far too black, which is mostly due to over-printing. Your lines are all inclined and parallel, — a most unfortunate state of affairs, as it gives one the impression that the whole landscape is toppling over.

737. THE BROOK HANS A. ERICKSON

748. Miss S. S. Fleitmann. — Your puppies are a very interesting group. Unfortunately you have not made as good a print as you might have. The camera was not held horizontal, — a fault, however, which could be obviated in trimming, but you have a dark streak at the top of the picture coming down close to the dogs' heads, which practically ruins the prints.

749. J. P. Blanchard. — "A Sagebrush Mining Camp." This is a good record photograph, and shows the typical sagebrush scenery very well. We see no way in which this print could be improved under the circumstances.

750. Frank L. Bey. — "Campers." The print is well exposed, and would be a good record if you had not spoiled it by the very unartistic flames which you have painted on the negative. It is practically impossible to photograph fire, and it is absolutely impossible to try to paint it in.

*751. Charles S. Roulo. — "Sunset." This very attractive print well conveys the feeling of a quiet and peaceful sunset. The foreground seems to us perhaps a trifle low in value for the time before sunset, and perhaps the print would have been more successful if the sun's position above the horizon had not been apparent.

752. Oliver W. Holton. — "By the Brook." Your print is too contrasty, a common fault, but one which you should endeavor to avoid by giving more exposure and less contrasty development. The idea of the arrangement is good, but you should have had your figures slightly smaller, by not getting so close to them with the camera.

753. Mrs. C. C. Beyer. — "The Old Covered Bridge." This is not a good record photograph, because of the enormous amount of over-development you have given, — so much that the house beyond the bridge is hardly perceptible upon the print. All that is important in this print could be preserved by trimming it one inch from the bottom, and one and one half inches from the top.

754. J. E. Ward. — "A Trunk Full of Treasures." This picture of three children sitting on an old hollow stump is a good record, and it should be a source of pleasure to the parents. The photograph is good, and barring the rather spotted background, there is no improvement to be suggested.

The Round World Exchange Club

Since publishing the preliminary list of members last month, a large number of requests for application blanks have been received, and these have been sent out. It is requested that all members who have not yet filled out the application blank with the details of their exchange propositions do so at once. We publish below the exchange notices which have been received up to the time of going to press, and also the names of members not previously published, some of whom have not filled out the exchange notices. The numbers now assigned are provisional, and those who do not fill out the application blank within the next thirty days will be considered as not caring to join, and their numbers will be assigned to other applicants. The code for exchange purposes is now in the hands of the printer and will be sent out in a few days. After its receipt members should follow the provisions of the rules, and exchange only by means of the code. This is to enable members to distinguish between their fellow-members and outsiders who have not joined the club, and it is earnestly desired that requests for exchange from those who are not members should be declined. Membership costs nothing, and if we exchange only with members we shall be able to weed out undesirables who do not live up to the rules.

Exchange Notices

3. Charles W. Weir, 209 Vatet Block, Muncie, Ind., 3¼ x 5½, gaslight papers, landscapes and general.

4. E. Herbert Dingley, Farmington, Me., 3¼ x 5½, general subjects on developing paper.

5. Clarence A. Shedd, 224 West 21st Street, New York, N. Y., 3¼ x 5½, gaslight and P. O. P., historical, novel, genre, etc.

6. Simon Rosenfelder, Jr., 611 So. Marshfield Ave., Chicago, Ill., 3¼ x 5½ to 5 x 7, developing paper, general.

9. P. Lalonde, 815 St. Denis Street, Montreal, Que., Canada, 4 x 5, gaslight, general (groups, landscapes, portraits, etc.).

11. Thomas Bradt, Orwell, Ont., Canada, 4 x 5, developing paper, mostly country scenes.

16. Charles G. Jones, Box 67, Harrison, Ark., 3¼ x 5½, developing and P. O. P., views in the Ozark Mountains.

18. W. M. Horton, Alvord, Tex., 3¼ x 5½ to 5 x 7, developing papers, general subjects.

21. J. B. Oheim, P. O. Drawer M, Henrietta, Tex., 2¼ x 3¼ to 5 x 7, any printing process, general subjects.

23. John Shahan, Jacksonville, Ala., 5 x 7, platinum, carbon, artura, and colored prints, general subjects.

25. Elliott S. Blakely, 86½ Union Street, Lynn, Mass., 5 x 7 developing paper, flower studies only.

New Members

27. Dr. J. G. Sheafer, 304 O. T. Johnson Bldg., Los Angeles, Calif.

28. Wm. Prescott, Jr., Box 59, New London, Conn., 3¼ x 5½, general subjects.

29. Charles H. Partington, 3767 Oakley Avenue, Hyde Park, Cincinnati, Ohio, 5 x 7, D. O. P. and platinum. General.

30. G. M. Thompson, Apartado 13, El Oro, Estado de Mexico, Mexico.

31. Paul Semmer, 469 Jefferson Street, Portland, Ore.

32. Henry C. Shaw, General Delivery, Denver, Colo.

33. H. Crosby Ferris, 837 Acoma Street, Denver, Colo., 4 x 5 developing and P. O. P., Colorado scenery, Denver views, and general.

34. Burdette Harrison, 210 Lock Street, Tarentum, Penn.

35. W. W. Burson, 1412 W. State Street, Rockford, Ill., 10 x 12, bromide, gum and carbon, portrait, genre, and landscape.

36. L. Roy Frey, 739 Lincoln Street, Reading, Penn., 3¼ x 5½, D. O. P., landscapes and general.

37. Frank Grafton, P. O. Box 33, Chester, W. Va.

38. James M. Mitchell, 1149 Chambers Street, Trenton, N. J.

39. G. M. Burchnell, Monroeville, Ind.

40. E. A. Billing, 10 St. Mary Road, Norwood, Mass.

41. Jno. De Phillippi, 1004 Hennen Bldg., New Orleans, La.

42. Alexander M. Troup, 22 Webster Street, Barre, Vt., 5 x 7 to 8 x 10, developing papers, landscape and monumental.

43. Roscoe F. Dow, 59 Silsbee Street, Lynn, Mass.

44. Mde. L. J. Peloquin, 1156 St. Denis Street, Montreal, Que., Canada.

45. Henry Atkins, 113 Meedwood Street, Queens Park, Manchester, England.

46. Leo A. Turnbull, Box 222, Phoenix, Ariz.

47. H. D. Fowler, 1600 35th Avenue, Seattle, Wash.

48. J. E. Arblaster, 1501 Johnson Avenue, Kittanning, Penn., 4 x 5 to 5 x 7, developing paper, views and landscapes.

49. Dr. D. J. Ruzicka, 334 East 72d Street, New York, N. Y., 5 x 7, developing and P. O. P., landscapes and city views.

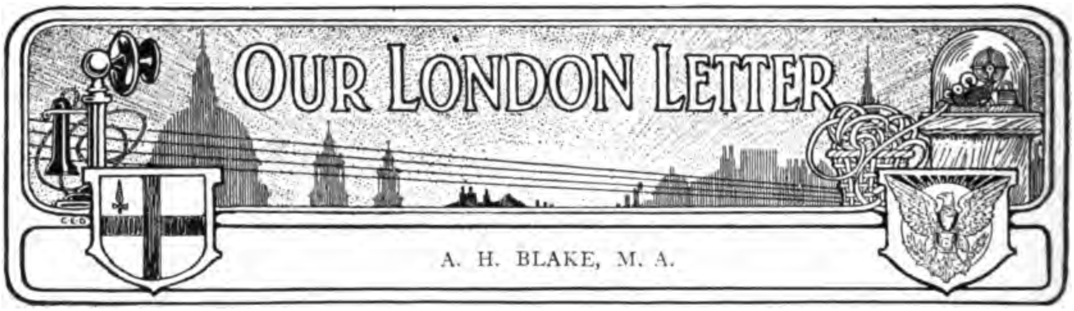
50. A. L. Keyes, Milford, N. H., 3¼ x 4¼, P. O. P., landscapes.

51. Albert Hooper, 5th and Jefferson Sts., Wilmington, Del., 2¼ x 2¼ to 5 x 7, D. O. P., landscapes and portraits.

52. Samuel R. Ewing, 215 Jefferson St., Wilmington, Del., 2¼ x 3¼ to 5 x 7, D. O. P., views, portraits, etc.

53. Earl H. Brant, 55 Park Ave., Tonawanda, N. Y., 5 x 7, general.

54. C. A. Crawford, Philipston, Pa., 4 x 5 to 5 x 7, D. O. P., landscapes, engines and trains.



OUR LONDON LETTER

A. H. BLAKE, M. A.

THE LONDON SALON OF PHOTOGRAPHY

As I understand that my readers are to have a full account of the above from the able pen of my friend Mr. Snowden Ward I shall not enter fully into the matter, but cannot omit to say a few words about the exhibition in general and the American exhibits in particular. One thing is certain that however sanguine were their expectations, the promoters could not have anticipated a better show than is on the walls of the Fine Art Gallery nor have at their first venture a wider support than there is evidence of. The *raison d'être* of this exhibition was, I suppose, in part the objection of some of the members of the Linked Ring to the system, which the last few years had seen grow to such large proportion, of hanging a whole exhibition with practically the work of half a dozen men and those all of one school of thought and generally members of the selecting committee itself. It will be noticed that in this exhibition there are one hundred and forty pictures, and instead of coming from some six or eight men there are sixty-five exhibitors, or an average of about two pictures for each exhibitor. There is only one man, Dührkoop, who has more than four, while three is the limit, as a rule, of the best workers even amongst the members of the committee. The photographic and lay press has with two exceptions given unqualified praise to this show, and certainly (till the Linked Ring hold another combined exhibition, which I for one would gladly welcome) its great success will amply warrant its continuance. It was most unfortunate that the American collection of pictures from Budapest arrived too late to be shown, the gallery actually being open and the catalogue printed before they were heard of; but several Americans sent work direct which was in time to be submitted to the committee. There are two excellent examples of the work of W. H. Porterfield, one of which is well known to you and much admired by us; I allude to his "Albright Gallery." There are six examples of the work of Frank Eugene, some of them quite new to us, and they have rightly attracted much attention. Yarnall Abbott's two pictures are very representative of his style, and so are those of W. and G. Parrish of St. Louis. It is needless to say that Holland Day and Mrs. Käsebier are much sought after and studied. It is characteristic of this salon that there are no freak pictures, — nothing done merely to draw attention to itself and make a splash: it is good, well-considered work, free from eccentricity, and yet of the highest order. There is no doubt that next year the impression that this exhibition has made on the public mind will issue in a widespread belief in the aims and fairness of the committee and the work of selection will be rendered very difficult by the mass of pictures that will be submitted.

Photographic Instruction

The opportunities for photographic instruction in this country are of two kinds — public and private; the latter naturally offering the chance of more rapid advancement, but demanding a somewhat heavy outlay in cash, the other equally good and generally by the same teachers as the former, but manifestly as the strength of a chain is that of its weakest link, so the progress of a class is that more or less of the least intelligent and slowest learning member. Our instruction season is just opening. Leading teachers like Mr. Hewitt at the Regent's Street Polytechnic and J. H. Gear of Nottingham Terrace, Regent's of Park, will be taking private pupils in all branches work. The usual fee is £5 5*s* o*d* for a course of twelve lessons, but the number of those who attend these is as nothing compared with those who gather in the evenings at polytechnics and institutes throughout the country. The fees paid at these night classes are remarkable for their cheapness, and work out at something like 10*d* a lesson. Not only can the amateur get all needful instruction for a negligible fee, but the budding professional can learn all that he needs at the same time that he is keeping himself by his ordinary labor in the daytime. It is, I believe, likely to become customary, and it would certainly be an excellent plan, that as different nations are notable in photography as in other things, for differing excellencies, that those who intend to go in thoroughly for photography should have after they have taken their instruction in their own country, an opportunity of finishing in some other place to learn the particular lessons that a different nation could teach. Germany and America, for example, have much to teach us if we will but learn it. An interchange of pupils would be of service to both nations.

The Seventh American Salon

Particulars have reached us as to the arrangements for the seventh American Salon, and we cannot help feeling sorry that the foreign element is this year excluded. There are no reasons given for this decision, so we can form no opinion as to the necessity of such a course, but for our own sakes we are sorry (and some of us have consistently supported it since its first inauguration), but more for your sake. An exhibition in these days, at least so it seems to us, which only shows the work of its own nation and only compares itself with itself, is voluntarily depriving its clientèle of a valuable element of photographic education. Our big shows always have a foreign section, or rather admit foreign work on equal terms with the home product, and it seems a pity that an exhibition which visits so many of your cities should show them nothing of what is being done in other countries. The American Salon is a pattern to us in one way, and I for one shall never rest till this feature becomes part of our own system; it is peripatetic, and though this involves expense and trouble in organization, it surely pays one hundred-fold in usefulness, and value, of the exhibition. I do not know whether it is a fact or not, but one would anticipate that the rank and file of your photographers, owing to a really good exhibition traveling round to them all once a year, are much more *au fait* than ours as to what pictorial photography has or is likely to accomplish. The ignorance of the great mass of our people on this matter is profound, and until we get a really good peripatetic show I fear it must remain so.

Printing Processes at the Exhibitions

It has been rather interesting to note what printing processes have been most in favor at our two leading exhibitions which will both have closed their doors before this reaches my readers. In the Royal the balance of parties, so to speak, is as follows: Of oils and bromoils there were fifty-six, bromides fifty-two, carbon fifteen, platinum thirty-seven, ozobrome six, and gumbichromate eleven. This shows, at any rate, that the oil process has caught up and passed bromide, and that gum gets no support except from those enthusiasts who are still amongst the best of our pictorial workers when they care to show. It is not surprising that platinum still holds its own, but certainly one would not have felt justified in asserting before the event that it would get as much as half the support of the now popular oil process. In the case of the Salon, though the names of processes were asked for, they were only given in so few cases that it was not considered worth while to enter them in the catalogue, so that one is rather in the dark. A careful computation and examination of prints seems to show that there were about forty oil prints out of a total of one hundred and forty, and probably as there was a good show of foreign work the gum prints were nearly as numerous, such continental workers as Paul Pichier still keenly supporting the gum. Platinum had a few fine workers, showing such as Holland Day, Käsebier, and our own Frederick Evans. There is a tendency amongst the younger men to secure all they possibly can on the negative and so trust as little as may be to after manipulation on the print, though they do not limit themselves in any way and think it quite lawful to get the result they aim at in any way they like as long as they are not found out. In time this should lead to the cult of the direct as distinct from the controlled printing processes.

When I next write the winter work, lesser exhibitions, lectures, demonstrations, will be in full swing, and doubtless there will be much interesting information to offer you.

OUR TABLE.

CHAS. E. DAWSON.

Material for examination and books for review may be sent to Frank R. Fraprie, 221 Columbus Ave., Boston, Mass. Any book reviewed will be supplied by our Boston office at the price mentioned.

THE LANDS OF THE TAMED TURK, OR THE BALKAN STATES OF TO-DAY. A narrative of travel through Servia, Bulgaria, Montenegro, Dalmatia, and the recently acquired Austrian provinces of Bosnia and the Herzegovina; with observations of the peoples, their races, creeds, institutions, and politics, and of the geographical, historical, and commercial aspects of the several countries. By Blair Jaekel. With numerous illustrations from photographs taken especially for the book. Boston, L. C. Page & Co., 1910. Price, $2.50.

The author of this well-illustrated and attractive gift book made a journey from Budapest through the Balkan States and up the Dalmatian Coast, through lands little known to tourists, and still retaining the oriental impression given them by former Turkish occupation. Mr. Jaekel has produced a very readable and entertaining book, which gives the reader an insight of the present condition and past history of these fascinating lands. The illustrations are numerous, and excellently reproduced in duogravure, and are from original photographs by the author and the well-known lecturer Nox McCain.

* * *

IT has been called to our attention by readers, that the cut used in the advertising of the Wollensak Optical Company, in our September issue, and there stated to have been made with an Optimo shutter, was published in the June number of *Camera Craft*, with the statement that it had been made with a focal plane shutter. On calling the attention of the Wollensak Optical Company to the discrepancy, they showed us correspondence with the maker of the picture, proving that the picture was really taken with the Optimo shutter, and that the statement in *Camera Craft* was due to some mistake. The Wollensak Optical Company desire to have this correction made to our readers, that there may be no question of their making false claims, which are absolutely unnecessary, as the Optimo shutter is perfectly capable of doing such work as that shown in the picture in question.

THE Ansco Company, Binghamton, N. Y., have issued a folder entitled "The One Way to get Best Prints from Photographic Negatives," containing a large amount of very useful information as to why Cyko prints are always satisfactory. It is well worth the reading of those who make their own prints. A copy will be mailed you by the company on request. Incidentally we may remark that we learn that the second prize in our Flower Competition "Peonies," by Mr. Harry L. Williar, was a Cyko print, — a proof of the excellent quality of the paper.

The Ansco Company is removing its Camera Department, which has been for some twenty-five years established at New Haven, Conn., to a new factory in one of the suburbs of Binghamton, about a mile from the parent plant. Although the citizens of New Haven are very much dissatisfied with the removal of this old established industry of their city, it is undoubtedly advantageous for the company to have its manufacturing departments in closer contact with the home office.

* * *

THE TAYLOR-HOBSON CO., 1135 Broadway, New York, have, as our readers have undoubtedly discovered from their advertisement published last month, introduced a new lens called the Cooke-Telar. This type of lens is new to the American market, and is a compact high-speed anastigmat of extremely long focus. Unlike other long-focused combinations, only a short bellows is required, and one may, therefore, by its use, obtain magnified images of distant objects with far more facility and ease than has heretofore been the case. The lens works at a speed of f. 7, and is, therefore, appreciably faster than the long focus, single combinations of other anastigmats. It is exceptionally useful with a Graflex camera, as it enables the press photographer to get a much larger image on the plate than can be done with ordinary lenses. Full information in regard to this most useful lens will be furnished by the makers on request.

The same firm have also issued a new catalogue, which explains many of the points which are puzzling to the average amateur who desires to get a new lens. At the head of each page, a few words tell the particular purpose for which the lens described is the most useful, and the reasons for this recommendation. We find announced as a novelty in this catalogue, the Cooke-Primoplane lens, intended for extremely wide-angle work of all kinds, working at an aperture of f. 6.5, and, therefore, of great advantage for dim interiors. The remarkably successful Series VI Portrait lenses are also described, together with extension lenses for almost all series of Cooke-Anastigmats. Among the valuable information in the book is a chapter on "How to Test Lenses," and an explanation of how anastigmats differ from ordinary lenses.

* * *

Robey-French Co., 34 Bromfield Street, Boston, Mass., has recently issued a 144-page catalogue of professional photographic apparatus and materials. This is a large and well-printed booklet, and lists everything which the photographer can need in his work. The firm will be glad to supply copies to our professional readers on request.

* * *

Messrs. Burroughs Wellcome & Co. have obtained what is believed to be a record number of distinctions in an exhibition of international character. The products of this firm have been awarded eight grand prizes, three diplomas of honor and one gold medal at the Brussels International Exhibition. Five grand prizes and one gold medal have also been awarded to the firm at the Japan-British Exhibition, London, 1910.

* * *

Autotype Carbon. — The new price list of the Autotype Carbon Tissues and Materials is now ready. To those who have not yet worked this beautiful permanent process with a range of thirty-seven different colors, this manual will be a splendid introduction to the Carbon picture. With the price list is combined condensed instructions, articles on manipulation of different transfer papers, and Carbon Ceramic Tissues, and the Three-color Carbon Process. If you will send your name and address, the agents — George Murphy, Inc., 57 East Ninth Street, New York City, will be pleased to mail you a copy.

* * *

Yes, Christmas is coming, and with it the usual perplexity of expressing the sentiment of the occasion through an interchange of gifts. The earlier the problem is tackled, the sooner is peace of mind restored. With this end in view it may be to our readers' advantage to make note of the miniature camera manufactured by the C. P. Goerz American Optical Company and known as the Vest Pocket Tenax. Although, as its name implies, this camera is so exceedingly small that it can conveniently be carried in the vest pocket without one being annoyed by its presence, its scope is equal to any of the larger and much bulkier instruments. Your best friend, man or woman, would appreciate your exceptional good taste and forethought on receiving one of these beautiful instruments from you at Christmas time. If you mention *American Photography* in writing to the above-mentioned firm, they will send you interesting information regarding this camera.

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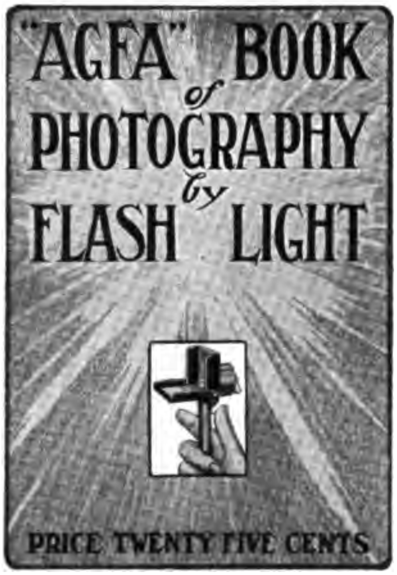


The Berlin Aniline Works desire to notify the amateur that they have in preparation a new book, per above cut, which completely covers the flash-light field. The method they have decided on for distributing this book is as follows: The amateur to send the label from the "Agfa" Blitzlicht Powder together with 10 cents. The book should be ready for distribution about December 1, and requests for same will be filled in the order received.

* * *

Die Technik des Platindruckes. Von Felix Naumann, Lehrer und Leiter der photographischen Abteilung an der Königlichen Akademie für graphische Künste zu Leipzig. Mit 12 Abbildungen im Text, 4 Tafeln und prakt. Rezepten. Leipzig, Ed. Liesegangs Verlag, M. Eger, 1910. Price, paper, 75 cents.

This volume in German, comprising about one hundred pages, gives a complete outline of the manufacture and use of platinum paper in its various varieties. Although the use of platinum paper seems to have gone backward in the United States, on account of the present high price of the metal, the beauty of the prints obtained thereby is surpassed by no other process, and those who are able to prepare their own paper do not find the expense prohibitive. Therefore his book should find many readers.

SOCIETY NEWS.

THE Seventh American Photographic Salon, under the auspices of the American Federation of Photographic Societies, will open its circuit at the Herron Art Institute, Indianapolis, the first week in November. Following Indianapolis, the salon will be shown at the Chicago Art Institute, at the Carnegie Institute, Pittsburg, at the St. Louis Museum of Fine Arts, at the Detroit Museum of Art, at the Toledo Museum of Art, at the Maryland Institute, Baltimore, under the auspices of the Baltimore Camera Club, at Philadelphia under the auspices of the Philadelphia Photographic Society, at Racine, Jamestown, and possibly Kansas City.

The jury met at Toledo the first week in October and was headed by the dean of American painters, Henry Mosler of New York, the first American painter to have his work purchased by the French government and placed in the Luxembourg Gallery. Mr. Mosler was created a Chevalier of the Legion of Honor of France and was made an Officier d'Academie of France in 1892. He has been awarded medals at the Paris Salon, at the Exposition Universelle, Paris, was awarded the Grand Gold medal at the Atlanta Exposition, and has been the recipient of many other honors. He is also a member of the National Academy. Other members of the jury were Edmund H. Osthaus of the Royal Academy of Duesseldorff, A. H. Griffith, Director of the Detroit Museum of Art, George W. Stevens, Director Toledo Museum of Art.

* * *

AMERICAN LANTERN SLIDE INTERCHANGE. — The annual call for the submission of sets of slides for the season of 1911 has been sent out by the general manager. Sets of fifty or more up to one hundred and twenty-five slides are required to be sent to New York, expressage prepaid, by January 4, 1911, for testing out by the board of managers. The board consists of F. C. Beach, New York; H. R. Terhune, Orange, N. J.; Herbert F. Smith, Syracuse, N. Y.; Dr. Carlos E. Cummings, Buffalo, N. Y.; and O. C. Reiter, Pittsburg, Penn. There are now twelve different sets of slides in circulation. The different clubs in the Interchange are urged to begin early in the preparation of the 1911 sets, and to carefully test out each slide in the lantern before having the set sent to New York. New clubs and others interested should address F. C. Beach, general manager, 361 Broadway, New York.

* * *

A NEW portfolio club has been organized among the advanced workers in the territory east of the Ohio River and north of Washington, D. C.

Among its membership at present are such workers as: W. H. Zerbe, C. F. Clarke, S. B. Phillips, Miss Katherine Bingham, H. W. Schonewolf, W. E. Bryan, L. J. Fitler, Mrs. Margaret E. Menns, H. D. Williar, H. A. Harvey, C. H. Renish, Dr. T. W. Kilmer, and C. R. Tucker.

Membership is by election after circulation of samples of work, and only those of marked ability are desired.

Advanced workers within the section specified who think they can qualify, might find it to their interest to address Roy C. Burckes, Winter Hill, Mass., for further information.

* * *

NEWARK (N. J.) CAMERA CLUB. — The club is fortunate in having active committees to stir up the members to do good work. Recently the Lantern Slide Committee (Messrs. W. S. Norris, Frank Cotherman, Otto Brautigam) issued a circular letter to the members, making an appeal for more activity in slide work, urging every member to produce some good slides for the club's 1911 Interchange set. The committee began its work on Thursday evening, September 15, and will be in attendance at the club every Thursday evening. Prints for newspapers are to be handed to the secretary. The club is to have a lantern slide competition, which closes on November 14.

Slides for the Interchange for coming year must be in the hands of the committee not later than December 19, 1910.

The annual lantern slide exhibition will be held in Wallace Hall, Y. M. C. A. Building, on Monday evening, November 28, 1910, under the direction of the entertainment committee, Messrs. F. Oscar Race, Alexander Berne, John K. McCrea.

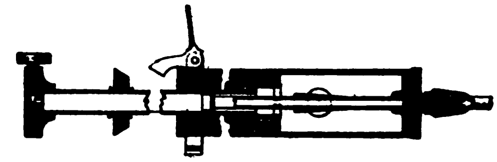
RECENT PATENTS.

CHAS. B. DAWSON.

Abstracted by F. C. Beach. Copies of any of these patents may be obtained at 10 cents each from Munn & Co., Patent Solicitors, 361 Broadway, New York City.

September 6, 1910.

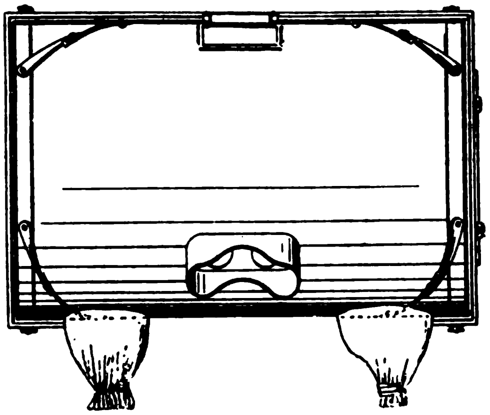
969,194. SHUTTER-OPERATING APPARATUS FOR PHOTOGRAPHIC LENSES. Siegmund Roesner, Chicago, Ill.



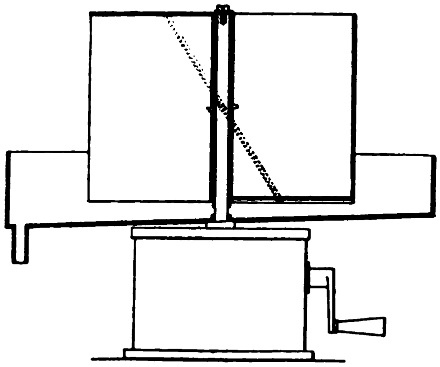
This device provides a substitute for the usual rubber bulb for operating a lens shutter. The sectional view shows the main features of the construction. The rubber tube connecting the cylinder to the lens shutter is attached to the nozzle on the right end of the cylinder, the air duct passing through the nozzle to a stationary axial hollow tube closed at its left end with a cap. On this tube is a sliding ball-shaped valve which covers an aperture in the tube. Concentric with the inner tube at the aperture is a bevel-shaped permanent sleeve, designed to check the movement of the ball-shaped valve, when the latter is drawn backward in setting the shutter. This inner tube, it will be noticed, is arranged concentrically within the outer cylinder, and over the central tube runs a hollow piston tube, the piston of which is impelled forward by the tension of the spring behind the piston. The outer cylinder is shown slightly broken away; same also with the sliding hollow piston. Attached to the extreme rear of the latter is a disk-shaped handle having an aperture connecting the tube with the outer air, the size of the aperture being regulated by a small adjusting screw. A beveled circular disk in spring friction contact with hollow piston rod, moves along with the rod when the release is operated for making an exposure, and strikes a pivoted bell crank arm attached to the top of the outer cylinder as the hollow piston is propelled forward by the spring, throwing the vertical arm backward at an angle, which is a signal that the shutter of the lens has been closed and the exposure completed. As the hollow piston advances, two gripping jaws located in its face pass over the ball-shaped valve and push it forward. This uncovers the opening in the hollow piston and causes the compressed air surrounding it within the cylinder to rush into the piston and forward to the shutter on the lens and opening shutter, causing same to remain open until the piston has reached the forward end of the cylinder, when the air coming in at the left end of the hollow piston rod equalizes the pressure of the air in the piston chamber, then the shutter closes. At this time the circular bevel disk operates the signal, indicating an exposure has stopped. When the hollow piston rod is drawn back, the ball valve is pulled back with it by the spring grips until the valve covers the opening in the circular bevel ring on the piston rod. The idea is to allow time for the operator to be in the picture and to know when exposure has stopped by the signal previously described.

September 13, 1910.

970,104. PORTABLE ENCLOSURE FOR PHOTOGRAPHIC PURPOSES. Orazio Pascale, New York, N. Y.



The illustration is a plan view of the arrangement when opened up for use. It consists of a hinged floor board covered with cloth. Rising from each end of the board are pivoted semicircular metal hoops to each of which is attached the flexible, non-actinic covering. Foldable corner braces are placed at each corner which support the end hoops in an upright position. A celluloid non-actinic window is inserted at the side opposite the sleeve apertures, and between these is the usual viewing non-actinic aperture. A handle is provided on the right end for carrying the apparatus when folded up. It can be quickly set up, and re-folded after use. The corner braces are first unfolded, then the two end hoops are folded inward, and the two portions of the hinged floor brought together, making a compact arrangement for transportation.



970,108

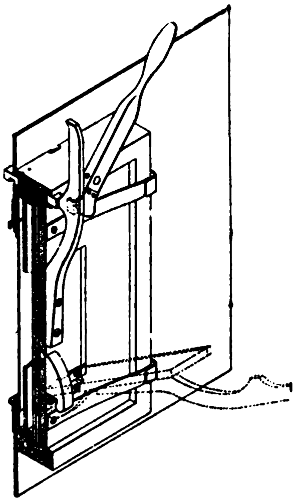
970,108. DRYING-RACK FOR PHOTOGRAPHIC PLATES.

Alexander N. Pierman, Newark, N. J.

The invention consists of gear mechanism in a base or stand operated by a crank or a spring motor, which rotates a vertical spindle rapidly. Attached to this spindle is a tube secured by a screw at the top. To the tube are secured metal plate holding frames, arranged at a slight angle as indicated by the dotted lines. The plates to be dried are inserted in the frames with the film side outward. Then the crank is turned, causing the plates to be rapidly whirled through the air, which quickly dries them. The trough above the motor box catches the water as it is thrown off and is discharged through a vertical pipe at the left-hand end.

970,127. PHOTOGRAPHIC PRINTING MACHINE.

William E. Service, Bridgeton, N. J.

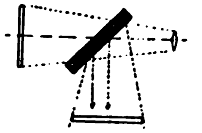


A large ordinary printing frame is attached to a board division or partition to exclude daylight from the operating room and a back is clamped in position in the frame by the usual spring clamps. In the back is a smaller aperture covered by a spring-hinged back or platen for pressing the paper sheet in contact with the surface of the negative. Secured to the back of the platen is an upright arm or handle lever having on its under side a projection for pushing outward a spring bolt or latch, that releases a sliding shutter causing latter to move to the right and open by means of a tortional spring on the shaft of a second lever shown at an angle to the platen handle. The operating shutter lever at its lower end engages and locks the platen handle as the shutter lever rises upward and holds the paper clamped against the negative during exposure. By drawing downward on the operating shutter lever the shutter is closed by sliding to the left. The lower end of the lever at the same time passes by the catch on the platen handle lever unlocking same, allowing latter to fall backward by a spring at hinges on the lower end, and then the easy removal of the exposed sheet. The dotted line shows the position when open. By this arrangement the exposing shutter is always closed when the platen is opened outward at the back, and only opened for exposure when the platen is up in contact with the negative. In the illustration the exposing shutter slides in the upper and lower grooves on the opposite side of the partition and is not seen.

970,322. APPARATUS FOR TAKING PHOTOGRAPHS IN COLORS AND CAUSING THEM TO APPEAR STEREOSCOPICALLY.

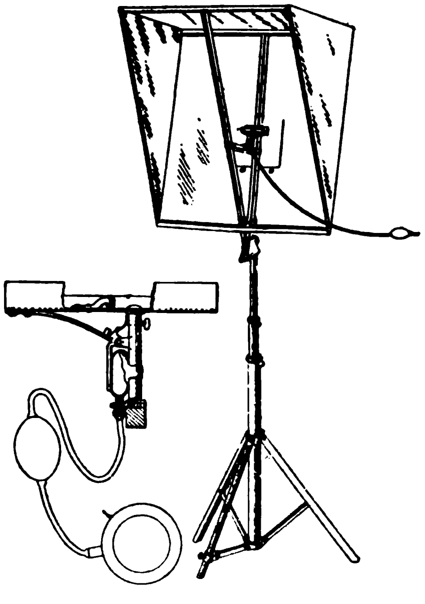
Louis Geisler, Paris, France.

The arrangement described is somewhat like the plan used in the Ives latest tri-color process. In the diagram the lens objective is at the right. To the left of this, at an angle shown in section, is a transparent colored glass reflector which reflects a portion of the horizontal rays from the objective downward upon a horizontal complementary color screen under which is a color-sensitive emulsion plate of the proper quality. This latter plate receives the colored rays passing through the colored screen plate above it and is affected accordingly. The horizontal rays passing through and beyond the angular transparent colored reflector impinge against a vertical panchromatic sensitive plate. Thus two duplicate negatives are obtained, one produced by the yellow rays to the vertical plate and the other by the reflected rays through a blue screen in contact with the horizontal plate. These form one pair of four plates. The other pair is the red and green series and the light from the second stereoscopic lens or objective strikes a transparent green inclined reflector or mirror, its horizontal rays passing through and back, impressing the green sensitive vertical plate while the white downward reflected rays pass through a red screen plate superposed in contact over the horizontal red sensitive emulsion plate. From the four negatives thus obtained positives on glass or celluloid are made, and when superposed in front of the respective color screens and mounted as a stereoscopic picture, the colors and pictures merge in one harmonious colored view when viewed in the stereoscope. The red and green colors are employed on one side of the stereoscope and blue and yellow on the other side. As they merge laterally in the stereoscope and are complementary to each other, the composite single picture in the colors of nature is obtained on the principles on which Ducos Du Hauron and Cross based the reproduction of colors. It is much the same as the merging of the colors is brought about in Ive's photo kromscope.



970,358. FLASH-LIGHT APPARATUS.

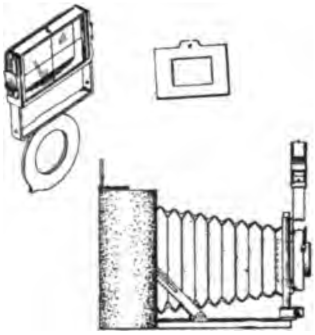
David C. Shoberg, Avon, S. D



The large view shows the stand and canopy set up ready for operation. In the center of the back is where the flash-pan is located. The smaller view is a detail illustration of the construction of the flash-pan and the devices for igniting the powder. The stand telescopes within itself by three or four sections secured at any desired height by set screws. A special clamp at the top of the smallest section supports the framework of the canopy and locks it to any position to which it may be adjusted. The framework can be compactly folded up and the whole rolled up and carried in a single roll. In the small illustration the tubular support for the horizontal flash-pan sets over an upright post rising from a transverse brace in the center portion of the canopy frame. There is a small aperture in the bottom of the flash-pan just under the anvil observed rising slightly above the level of the bottom of the pan. Attached to the left end of the under side of the bottom of the pan is a flat steel spring, under tension, carrying a small projection at its right end which serves as a hammer. The end of the spring is locked by a latch forming part of a hinged trigger whose long arm hangs vertically downward and presses against a rubber bulb secured to the upright post. The other upper projection on the trigger presses against a small curved flat spring, whose tension can be adjusted by a set screw. From the fixed rubber actuating bulb the tube passes down to the actuating hand bulb, and from the other end of the bulb the tube goes to the circular portion of the shutter on the lens tube and automatically operates the lens shutter. The flash powder is set in the pan near the support of the denonating cap. In making an exposure, pressure on the hand bulb expands the air in the fixed tubular bulb, this in turn forces the long portion of the trigger outward, throwing at the same turn the trigger catch to the right, which releases spring hammer, allowing it to fly up against the cap previously affixed to the anvil and ignite the flash powder as it explodes. Pressure of the hand bulb also causes the air to work in the opposite direction and release the lens shutter and make the exposure coincident with the flash.

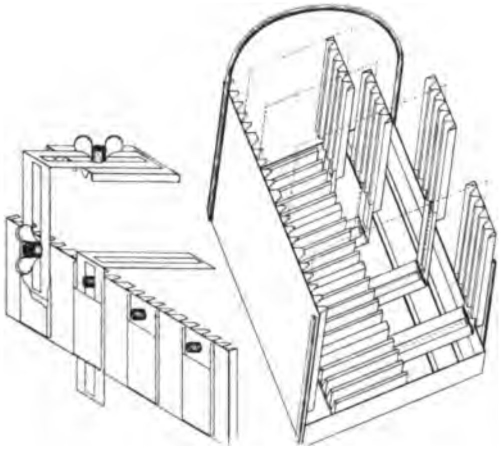
September 20, 1910.

970,443. CAMERA FINDER. George F. Hammond, Cleveand, Ohio.



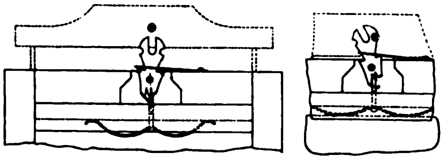
The finder is supported adjustably in a frame whose base is rigidly attached to a ring with two projections on its outer periphery which impinge against an upper or lower stop on the lens flange or tube. The ring encircles the lens tube and is movable laterally thereon, the object being to take advantage of the space between the lens tube and the inner longer end of the camera for the purpose of using a larger finder than usual. In a folding camera the finder frame supporting the rectangular glass concave convex viewing finder is rotated around the lens tube sidewise until the projection on the finder ring observed in the smaller illustration strikes a stop pin on the lens flange, then the lens front is pushed in and the base folded up as in the usual Kodak camera. The finder frame having been turned to one side, has more space to slide into the camera box with the camera front. In preparing to make an exposure, the lens front is drawn out on the unfolded baseboard, then the finder frame and ring are rotated around the lens tube until the finder frame takes a vertical position. The operator then raises the finder in the frame, until the finder is above the top of the camera front. The finder is held in the frame by small finger springs and is readily adjustable therein. On the camera back is a hinged adjustable vertical sight opening in line with the large finder at the front, so that the eye, when the camera is held up in line with the head, may sight through and bring the sight opening in line with a cross hairline center on the finder at the front and ascertain quickly what portion of the view will be covered by the plate. If a telephoto lens is used, a smaller area of the view will be required, and this is provided for by inserting in a groove in the front portion of the finder frame a mask frame, as shown in the smaller illustration. The larger illustration is a side view of the camera, showing the sight device over the camera back and the finder at the front. After exposure, the sight device is folded down flush with the top of the camera back. The improvement supplies a larger finder than usual, easily adjustable for any purpose.

970,491. EXTENSION RACK FOR PHOTOGRAPHERS. Paul M. Grandperrin, Sag Harbor, N. Y.



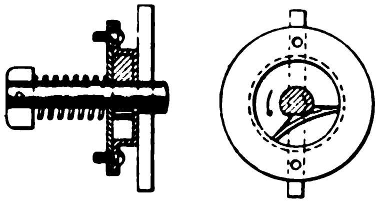
On one side of the usual box-like plate-drying rack sections are made to slide upward to suit different heights of plates. A thumbscrew on the back secures the section in any position it may be placed. Some sections have a bend at right angle to the vertical for locking a section of grooves horizontally above the top so as to clamp the plate at the top and preventing it from becoming dislodged when the rack is raised out of a washing or developing tank.

970,494. EXPOSURE INDICATOR FOR PHOTOGRAPHIC PLATE HOLDERS. Otto Halle, Oranienburg, Germany.



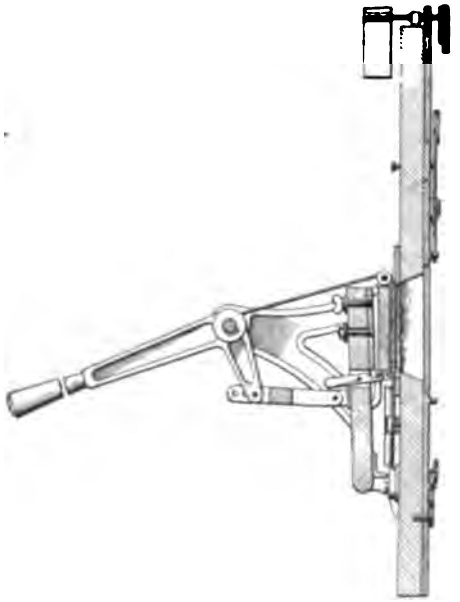
In the larger illustration the device for locking the plate-holder slide is shown pivoted to the face-end frame of the plate holder, and has straight vertical slot in the end, with a semicircular incut in each side, below which its shape tapers inward and then at right angles outward, forming two shoulders. A flat spring bearing on the shoulders is secured by a screw to the end of the plate-holder frame on the right. Below the pivot holding the device the lower edge is formed into wedge-shaped angular cuts, in which fits or acts a vertical sliding pin, pressed upward by a spring. On the end of the plate-holder slide is a knob which fits into the straight slot of the device, and in the position shown the slide of the plate holder can be withdrawn for an exposure. When the sensitive plate is put into the holder, one end of it presses against the bow-shaped spring and forces the pin upward, to work the device to one side or the other, which is assisted by the flat spring previously mentioned. The upper end of the pin is made bevel-shaped in order to move the device sidewise. After exposure, when the slide is put in, the knob strikes the curved side of the device on the right, and is forced into the right incut, which locks the slide and prevents it from being drawn out. This indicates that that particular plate has been exposed. The position is shown in the smaller view. In this the rough lower outline portion is a section of the plate pressing against the bow spring shown in dotted lines. The idea is to make a positive automatic lock for the plate slides, to prevent double exposure and insure safety after an exposure has been made.

970,603. WINDING KEY FOR CAMERAS. CARL BORNMANN, New Haven, Conn.



The sectional illustration shows the usual winding key for film spools, with the working handle at the right, and the projection that fits into the spool groove on the left, with the spring for forcing the end into the spool groove. Within the box between the handle and base plate is a partially eccentric plate attached to the operating shaft shown in the plan view at the right. When the shaft is rotated to the right, as indicated by the arrow, the flat portion of the shaft strikes a curve-shaped flat spring, pressing same inward but if it is attempted to change the direction of rotation, the flat section becomes locked against the spring and cannot be rotated backwards. It appears to be a simple but effective device for the purpose intended. The patent is assigned to the Ansco Co.

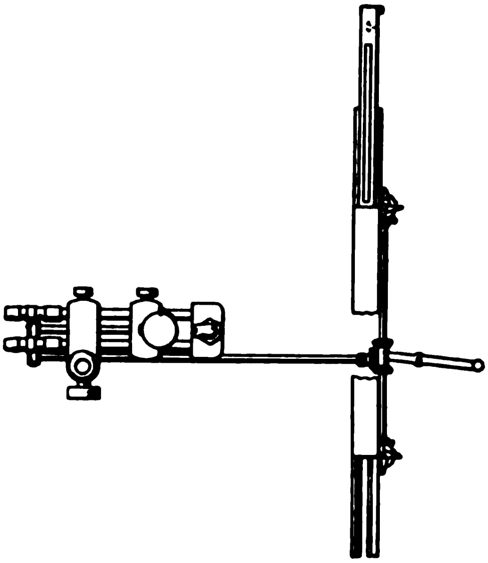
970,742. PHOTOGRAPHIC PRINTING MACHINE. GUSTAVE R. OLSON and DEMMIE HIATT, Plattsmouth, Neb.



The arrangement of the mechanism is such that when the sensitive sheet is placed in front of the negative and the platen is pushed up to bring the paper in contact with the negative, the shutter portion is automatically released for the exposure, after which the platen is drawn away from the negative and the exposed sheet is dropped below. On the left side of an upright division is supported upon a triangular-shaped bracket, a transverse shaft carrying an operating lever. From the short right angled arm of the lever is a link connecting same to the back of a hinged pressure platen which, as it is pushed forward, presses a smaller platen in front of it against the negative. At the same time a lug on the lower part of the pressure platen draws down a latch rod which releases the shutters located on the front part of the upright division not seen in the illustration. There are two sliding shutters one above the other, with arms that engage pins set in a perforated sliding vertical strip whose downward movement is regulated by a spring fan mechanism at the top. As the strip gradually descends by gravity, a pin in the strip strikes one arm, causing one shutter to uncover the opening; the second pin strikes another arm, causing second shutter to drop in front of opening, closing same.

After exposure the handle of the lever is raised, drawing (through the crank arm and connecting link) the pressure platen back and with it by the hook and latch just above the link bracket, the smaller or thinner pressure member. This allows the exposed sheet to drop below and a fresh sheet to be inserted. The operation is then repeated of pressing the paper against the negative and automatically releasing the exposure shutters which had been previously re-set. The shading curtains are arranged on the exterior of the upright board, one on each of the four sides of the exposure opening for shading any part of the negative.

970,962. DISSOLVING STEREOPTICON. ALPHONSO D. SMITH, Kents Store, Va.



The illustration is a plan view of the essential parts. The invention is a device for automatically rotating in opposite directions the lime cylinder of an oxyhydrogen lantern burner, in order to insure even illumination and preventing so-called "pitting" by the gas jet, bringing into position a fresh lime surface at frequent intervals.

A main shaft running along the side of the burner is connected by a belt at its rear end to a small pulley on the rear of the usual hand-rotating lime-holder shaft. The forward or right end of the shaft has a bevel gear which engages respectively in two other gears on a transverse shaft underneath the double slide carrier. The outer ends of this transverse horizontal shaft carry bevel gears, which mesh into other bevel gears at the bottom of two vertical shafts. The upper ends of these terminate in spur wheels or gears. On the underside of the double slide carrier at stated points are projecting pins, which strike the spur gear wheels as the carrier is moved back and forth by a pivoted lever (observed between the two bevel gears in the center) worked by the operator. The rotation of the transverse shaft turns the lime cylinder possibly a quarter of an inch. This the inventor claims softens or dulls the light enough to produce a dissolving effect during the transfer of one slide for another, but at once brightens up after the rotation is finished.

AMERICAN PHOTOGRAPHY

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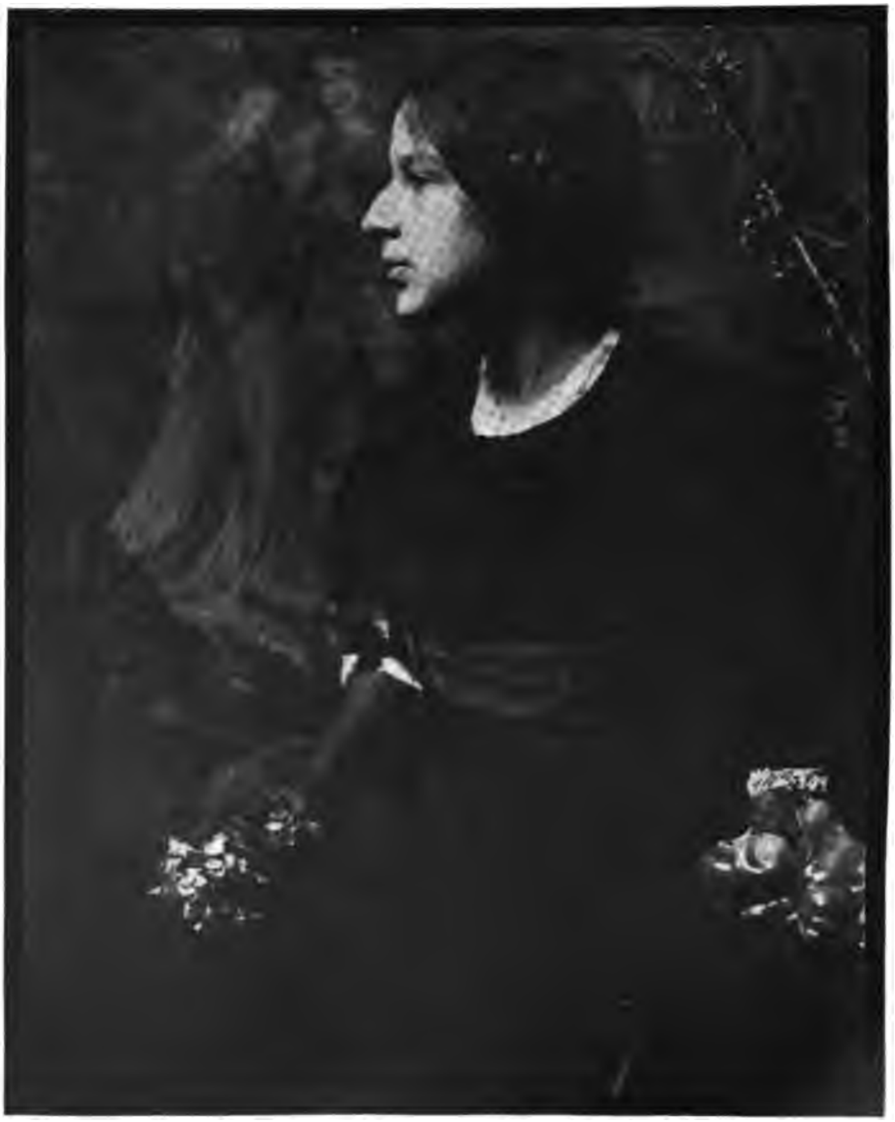


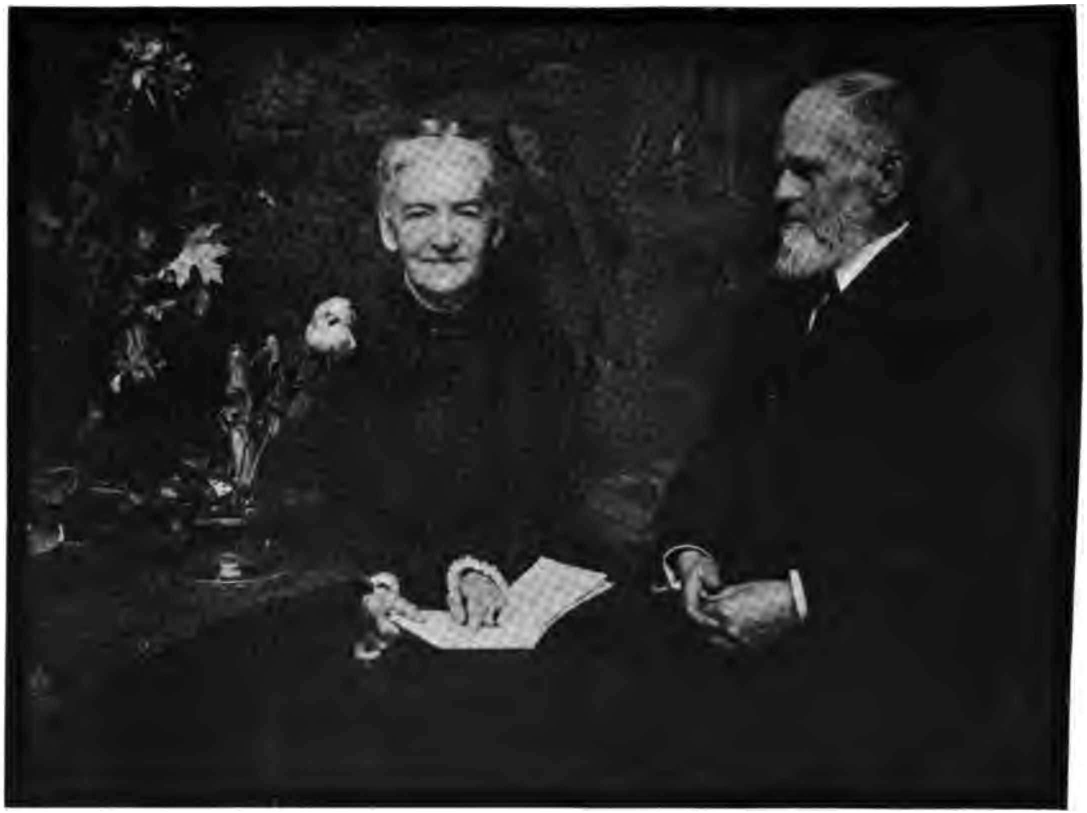
MONA LISA GERTRUDE KÄSEBIER NEW YORK

SOME IMPRESSIONS OF THE BUFFALO EXHIBITION

F. AUSTIN LIDBURY

THAT one of the most important and largest Art Galleries in America should, for the space of a month, to the practical exclusion for the time being of all minor and Pre-shavian forms of art, such as painting, sculpture, and etching, show a collection of six hundred pictorial photographs, is a most unequivocal and significant recognition of the place which pictorial photography has come to hold. Yet the Albright Gallery International Exhibition of Pictorial Photography, regarded in this light, is no spontaneous "recognition" extorted by the sheer and irresistible merits of pictorial photography. It is primarily a monument to Alfred Stieglitz. Working with and for a group of photographers (some of them experimentalists, some craftsmen, some artists, some of them all three), gradually spreading their influence until he had built up under the name of the Photo-Secession a wonderful and devoted organization with ramifications and connections extending all over America and Europe, this Napoleon of pictorial photography put into the movement for internal progress and external recognition the fanaticism of a Mad Mullah, the wiles of a Machiavelli, the advertising skill of a P. T. Barnum, the literary barbs of a Whistler, and an untiring persistence and confidence all his own, — a confidence that could remove mountains, to say nothing of the mere prejudiced conservatism of artistic persons. Recognition simply *had* to come — and be mighty quick about it; twenty-seven years being a vanishing quantity in the equation *Ars longa, vita brevis.* "This," he tells you, "shows the whole history; it is a summing up of the whole business — from the beginning." Here, you see, is the key-note of the exhibition; it appears, somewhat amplified by the concentrated mental efforts of eleven men, in the short and carefully-drawn foreword to the catalogue. The Occasion is the long-fought-for Attainment; let the Celebration, it seems to say, narrate the History of the Fight. To Alfred Stieglitz the congratulations of all pictorial photographers; and in double measure from those who have not been enrolled under his banner; for his present success, in the long run, means the success of the whole pictorial movement.

As will have been gathered, this is no ordinary exhibition; not merely because of its size (there are nearly five hundred prints in the Invitation Section and another hundred in the Open Section), or on account of the extreme care and taste in its hanging (no show was ever better hung), or even on account of the fact that it contains a great deal of the very best pictorial work that has ever been done. It differentiates itself by being essentially a historical epitome. It is not and does not claim to be the best collection of pictorial work that could be brought together. It purports rather to show the history of a movement; not the history of pictorial photography in general, but the history of that militant branch, the Photo-Secession. It is well to bear this in mind, so, when you come across collections of prints that would to-day be rejected — and rightly so — at any select exhibition, you will understand that their makers were once, say about ten or fifteen years ago, at any rate on the outskirts of the battle. Or perhaps you may learn from your catalogue that certain prints represent the first experiments in some then new and epoch-making, now discarded process (hear the parable, you oil-printers!). Some of these workers have fallen by the wayside; some have found their powers waning and been shelved; but in the hour of triumph there is properly a commemorative laurel for the helot as well as the hoplite. At any rate there are the prints—dozens of them; and a receptive attitude, based on a knowledge of photographic history, is at least desirable in surveying them; (much in the same way as, before hearing "Parsifal," the thing to do is to saturate yourself with the proper religious atmosphere; even then, of course, you may be grievously disappointed, but it is your only chance). So, if one only gets a proper attitude of mind, all these rather weak-looking performances fall properly into place as Milestones in the Path of a Movement. One has, however, little need of these precautionary measures at first; for the exhibition has been arranged



A HUMAN DOCUMENT GERTRUDE KASEBIER, NEW YORK

with consummate skill and taste and a most unusual eye to general effect. The uniform mounting of most of the sections, the appropriate grouping in panels, the avoidance of glass-reflections by hanging at as low a level as possible, give a most pleasing appearance to the exhibition as a whole, and the skill here shown is again exemplified by the cunning device of hanging Steichen's three striking moonlights of Rodin's "Balzac" on a screen visible from the sculpture court, so that curiosity draws the visitor at once into gallery 17, the "big" room of the show; in which, among seventeen prints by de Meyer, and from twenty to thirty each by Steichen, Coburn, and Seeley, there is scarcely one which is not of large dimensions and corresponding size of conception and execution. A strong, bold, and effective group, they hit the eye at once, and are altogether the most popular collection in the exhibition. Some there will be who prefer to linger in the other galleries over, say, the photogravures of Annan or Eugene; but this is the gallery designed to catch the eye and draw the admiration of crowds. The Steichens are particularly striking; besides the Balzacs he shows portraits of Lenbach, R. Strauss, Rodin, Maeterlinck, J. P. Morgan, Roosevelt, Taft, and Lady Hamilton; three nudes (of which "In Memoriam" is not only the most effective but possibly the best print in the show, with its wonderful modeling and color, and the strength and delicacy of both conception and execution), as well as a few landscapes and miscellaneous prints. Wonderfully effective, striking, and strong as his prints, almost without exception, are, owing to his incomparable technique and the broad simplicity of his effects, it may be doubted whether the cumulative effect of the group is a correspondingly strong one. Nearly all of his examples are based on one particular mannerism — the flinging of a mass of light against a background of luscious but impenetrable

THE FOUNTAIN GERTRUDE KÄSEBIER, NEW YORK

depth; and the constant repetition of this unusual but limited scheme of tonality is a source of weakness to the general effect of his collection. On the other hand, if the grouping together of the Steichens raises doubts, the collection of de Meyer's prints which faces them gives an overwhelming impression which is increased by the presence of almost every print he shows. A wonderful assortment of portraits and character studies; a handful of inimitable still-life prints of glistening puppets and shimmering vessels of flowers; each one of wonderful conception, exhibiting a rare originality of view, and carried out with an extraordinary mastery of tone, light, and texture. Here is a worker whose prints are stamped with an unmistakable individuality, quite undisguised by his uncommon variety in subject and treatment, yet which cannot by any amount of analytical labor be resolved into a compound of mannerisms. A great artist; and a great collection of prints! It is of interest to observe that his most recent work is also his best. The same cannot, I think, be said of the other two artists whose work completes this room. Coburn is represented by his Rodin, Shaw, and William Nicholson portraits, as well as a few other old friends, including "Notre Dame," "Wier's Close," and that brilliant bit of *bravura*, "El Toro." The majority of his prints are, however, quite recent; and while they show not only no falling off but even a decided advance in his handling of wide and striking printing scales, he seems to be entirely losing grip in construction. At least half a dozen of his recent examples have little beyond their wonderfully extended tonal expression to recommend them; and this is the more surprising since Coburn at his best is unexcelled in originality and force of composition. On the whole, he is not shown at his best, and the same remark applies also to Seeley, who is represented chiefly by quite recent work in which he has chosen to develop schemes consisting of patterns in masses of almost unmodulated light and dark tones rather

INSTRUCTION GERTRUDE KÄSEBIER, NEW YORK

after the manner of stencil work, and in which the delicate play of tone-nuance, which was so charming a feature of his earlier and smaller work, has been thrown over for, as far as I can see, no corresponding compensation.

Surrounding gallery 17 are a number of smaller rooms in which other collections are hung, separately or in groups. One is devoted to what Mr. Stieglitz is fond of calling the "old masters." Here you can learn, from thirty-eight prints by D. O. Hill or from his negatives, that pictorial photography is not very much younger than photography itself; you can note that Mr. Stieglitz has as keen an eye for a perfectly "straight" rendering of the various phases of New York City as he had when he made his historic print of "Winter on Fifth Avenue"; but I think you are likely to linger most over Craig Annan's photogravures and to take careful note of the wonderful craftsmanship of the man and the still more astonishing fact that his early work looks just as good to-day as when executed. Here is certainly an example of the undying beauty of sincere work. Fashions have come and fashions have gone, making reputations and killing them; the history of all which is clearly written in the present exhibition. Untouched by fashion, seeing with an artist's eye, executing with unrivaled skill, Annan has steadily worked along and has to-day the satisfaction, rare in so young an art, of being able to look back at his early work and call it good, to-day and for all time. Much the same can be said of Eugene; though one's satisfaction in his work is somewhat qualified by the attempt to insist on the value of some of his prints as being unique examples, rather than by letting their pictorial qualities speak for themselves. Eugene's numerous contributions, which include some of the series recently issued in *Camera Work*, are grouped with collections by Mrs. Brigman, Mrs. Käsebier, J. G. Bullock, Alice Boughton, Rose Clark, J. T. Keiley, and Holland Day, whose prints are from among his earliest work. Of these collections, those of Mrs. Brigman and Mrs. Käsebier are the most extensive and important, containing much of their best and best-known work. The yellow daubs with which Mrs. Käsebier has surrounded more than one half of her prints have a distracting effect and are unfortunate in interfering with the enjoyment of some of her best prints. In the French room attention will be chiefly centered on Demachy's twenty prints, two-thirds of which represent his latest work in oil and show well his extraordinary mastery of that process. The Puyo oils serve little purpose, except to show how smoothly the medium can be handled, but there is also one print in his best style,—"The Straw Hat,"—a gum. This room also contains six nude studies by Le Bègue, in gums of violent color; three prints by Dyer, a curious colored manipulation in platinum by Miss Stanbury, and three of the extraordinary series of Stieglitz-White collaborations in the meaningless depiction of the naked. The Austrian room is very interesting. The enormous Hofmeister gum, "The Solitary Horseman," and the large, but not so enormous gum landscapes of Kühn and Henneberg have a striking effect; and if on closer acquaintance they grow to appear somewhat crude in color and conception, and rather old-fashioned, you can always turn to some of Kühn's quieter, smaller and later work, the recollection of two of the portraits among which will stay with one for some time. The last room is devoted to Clarence White, whose prints are grouped and hung with more than usual loving care. Take off your shoes, walk softly with bowed head, cultivate with reverence an appreciation of the beauty of anaemia. You will have need of it. The collection contains a few of the prints which brought him reputation, and one or two later gems. It also unfortunately contains a great deal entirely unworthy of the artist, or, indeed, of being hung at all. The White room is the disappointment of the show.

The Sculpture Court affords a wide separation between the Sheep and the — Open Section. In the latter about a hundred prints are drawn from some thirty workers, those represented most liberally being Paul Anderson, Jeanne Bennett, Pierre Dubreuil, Arnold Genthe, Paul B. Haviland, W. J. Mullins, Carl F. Struss, and Augustus Thibaudeau, each of whom shows six prints or more, many of these prints being already familiar ones. The only unknown of consequence is Carl F. Struss of New York, who is represented by twelve prints, showing considerable technical attainments and ability to reproduce "effects," but varying very considerably as regards pictorial merit. On the whole, I think the Open Section was somewhat of a mistake. It contains not a little very competent work, and even a few real "joy spots," such as the portrait in oil by Mlle. Laguarde and the six extraordinarily interesting examples of Dubreuil's original, if distorted, way of looking at things. But it also contains not a little which goes to show that the now famous Principles of Independent Vision and of Quality of Rendering do not imply any higher standard than that of the ordinary camera club show.

Adjoining the Open Section is a group of British prints in which some of Davison's historic successes, a group of well-known Cochranes, interesting selections of the most recent work of that active triad, Dudley Johnstone, Arbuthnot, and Frank H. Read, a rather poor assortment of Benningtons, and some of F. H. Evans's architectural studies exemplify (in a very limited degree of course) British activities in pictorial photography.

So much for the scope of the show. One or two other general impressions are worth noting. The first is the danger that attaches to the use of Japan tissue in print making. There are numerous prints in the exhibition which show only too clearly that in some hands the peculiar qualities of Japan tissue prints have been paid for by a shriveling up of the surface which has resulted in an almost complete obliteration of the effective image. When it gets to the point where previous acquaintance with the picture through the medium of reproduction is necessary before one can make out the picture itself, it is time to call a halt. The next point is that not the least of the debts that the Photo-Secession owes to Mr. Stieglitz is in connection with *Camera Work*. In this wonderful periodical, through which the Photo-Secession workers are known even more widely than through the actual exhibition of their prints, he has maintained a standard of selection very considerably beyond that of the present show. One who has known the work of the Secessionists only through *Camera Work* will find little cause in the present exhibition for surprise or astonishment, except possibly in room 17; on the other hand, in the case of at least one well-known worker, the original prints now on view are so far inferior to the photogravures from the same negatives in *Camera Work* as to cause a distinct feeling of disappointment. Nor is the show without its lessons as to the kind of work that lives and the kind of work that, after flashing up brilliantly, dies; it may be doubted whether there ever was or ever will be a show so organized as to point this lesson with half such completeness; for if this exhibition contains a great deal of the very finest work that has ever been produced in photography, it also contains a great amount of the veriest rot. Do not pass the latter by with a scoff; it was once hailed as good; it merits your careful attention while it explains to you why it is now despised and rejected, and offers a few ideas which will be useful to you in looking over your own prints and asking yourself what will be the verdict on them in ten years' time. The last noteworthy impression you get from the show is that of finality. You meet it in the foreword of the catalogue; there is a certain sense of finality in the very phrase "summing up." Even the make-up of the exhibition itself, with its parading of old and forgotten protagonists, sounds like the word *finis*. And, indeed, the show is final in several respects. It is the final *travail* of the large-scale photographic exhibition. The feast is too gargantuan. At a time when even painters are clearly seeing that small and homogeneous collections are more enjoyable and better appreciated than large mixed shows, however well hung, photographers cannot afford to adopt retrograde tendencies. Nor will the present show encourage them to do so. Extraordinary and interesting as it is, viewed as a historical summing up, there is no question in my mind but that, as a show pure and simple, one hundred or even fifty prints selected from it would have made a far more enjoyable and impressive collection. Paradoxical as it may seem, the very completeness of this show proves that the day of the large show is drawing to a close.

It is final in another sense. It is the final and conclusive refutation of the claim that the Photo-Secession is divinely commissioned to uphold a standard of unusual excellence. The Open Section proves that.

Is it, one wonders, final in yet a third sense? Is the Photo-Secession, having at last stormed the citadel which it has been assaulting so long, having won that Recognition which has been the watchword of its fight, now singing, in this exhibition, its *Nunc dimittis*?

THE ALKALI FOR PYRO

The METHOD of development with pyro has changed very greatly during the last few years. No doubt, here and there, both amateurs and professionals are to be found who use ammonia as the alkali, following a practice which was once universal. But they are certainly a diminishing number, and are likely before many years have passed to be as extinct as the dodo. Pyro-soda is the combination which is now almost universally employed, and its general adoption shows at least that there is very little that can be said against it. But it must not be supposed that it will necessarily give negatives that are in any way better than those which can be obtained with other developers, even with other modifications of pyro; its very general use by both amateur and professional photographers is to be attributed more to convenience than to anything else. When other alkalies, with the single exception of ammonia, for any reason are more convenient, there is nothing to be urged against their employment.

BEACH'S DEVELOPER

The first formula to make any decided challenge to pyro-ammonia was the once popular "Beach's Developer." In this the alkali was potassium carbonate. The developer was worked out by Mr. F. C. Beach, and although at the time it was sneered at by some on the ground that it was "a chemist's shop," from the number of its ingredients, it hardly deserved the appellation, for many other formulas were far more complex, and it certainly was a most effective developer, giving very clean negatives with a fine black image, much prettier to look at than the usual yellow or yellowish green products of pyro-ammonia, and — when the difference in light-stopping power between the yellow and the black images was understood — giving quite as good prints, in far less time.

The popularity of the Beach developer had little or nothing to do with the fact that potassium carbonate was the alkali; but must be attributed to the very liberal use of sulphite and of sulphurous acid, which made staining of the negatives an impossibility, and gave the stock solution of pyro remarkable keeping properties. A year or two after it was made up it used to be as colorless as the day it was prepared. The very clean negatives it yielded prepared public taste for the newer developers which are now the most formidable rivals of pyro.

As there may be readers who would like to try Beach's developer for themselves, it may be well to describe how it is made up. Four ounces of sodium sulphite are dissolved in 5 ounces of hot water; and when cold, 4 ounces of sulphurous acid (the dilute form sold by druggists) are added; an ounce of pyro is dissolved in the solution, which will then make approximately 10 ounces of liquid. Three ounces of potassium carbonate and 2 ounces of sodium sulphite are dissolved in 6 ounces of hot water, and diluted to make 10 ounces in all. These are the stock solutions, and may be employed with different degrees of dilution to suit the taste of the user. A convenient strength is to take 1 dram of the potassium carbonate solution for each ounce of developer required, dilute it to that bulk and to add to it 20 minims of the pyro solution. It was generally used much stronger in pyro than this, but in our own practice we found this both wasteful and unnecessary.

THE OBJECTIONS TO AMMONIA

The reason why ammonia has gone out of fashion is partly, no doubt, that the yellow negatives which used to be obtained with it are no longer favored so much. They were not actually due to the ammonia, but to the fact that the developer contained little or no sulphite; and if any one tries the experiment of making up any pyro-soda formula, omitting sulphite and metabisulphite altogether, he will see that soda will give just as yellow negatives as ammonia, if not actually more so. The chief reasons were that the ammonia itself had an action upon the silver bromide in the film, which in the absence of sufficient potassium bromide led to fogging, that solutions of ammonia varied in strength from time to time, losing some of the ammonia every time the stopper was taken out of the bottle, and that in unskilful hands ammonia was very prone to give fogged negatives.

Caustic soda and caustic potash have both been suggested at one time or another for use with pyro; but although they can be so employed, they are not at all desirable, as they are needlessly energetic, do not keep unaltered in solution, and are prone to attack the gelatine, softening it and tending to produce frilling. Caustic lithia has also been used, but although its action on the gelatine is less harmful than that of the other caustic alkalies, it is not only more expensive and more troublesome to procure, but seems to be quite without advantage over the carbonates.

BROOK LANDSCAPE L. GÜNTHER, MUNICH

Pyro-acetone and Pyro-formaline

There is an indirect method of developing with a caustic alkali, which is free from some of the objections mentioned above, and that is by the use of acetone or of formaline. When either of these liquids is added to a developer containing sodium sulphite, the acetone or formaline reacts with the sulphite liberating caustic soda; so that by adding one or other to a plain solution of pyro and sulphite an active developer is at once formed.

Those who wish to try such a method may do so by making up a ten per cent solution of pyro, dissolving an ounce of pyro in a solution of 4 ounces of sodium sulphite in 6 ounces of water, and diluting to make 9 ounces — 1 dram in all. Forty minims of this solution are taken for each ounce of developer required and are diluted with water, 40 minims of acetone being added just before use.

A Good Strength for Pyro-soda

As we said at the commencement, pyro-soda is the favorite because of its convenience. The merits of it are that good sodium carbonate in the crystalline form is cheap, that it keeps well either solid or in solution, that its strength is definite and does not alter with the lapse of time, that it does not directly attack the silver bromide, causing fog, nor in the dilute form in which it is used in a developer does it attack the gelatine of the plate. A solution of pyro of a strength of from 1 to 4 grains to the ounce, according to the taste of the photographer, with a sufficiency of sulphite to prevent stain, will be found to suit most plates, if, as the alkali, 20 grains of crystallized sodium carbonate are present to each ounce. This is the developer usually given in the platemakers' formulas, and its general recommendation serves to show that as an all-round developer for negative use it leaves little to be desired. — *Photography and Focus.*

THE INFLUENCE OF JAPANESE ART ON MODERN LANDSCAPE PAINTING

ELISA ANNE SARGENT

SOMEWHAT more than a half century since, a great unrest manifested itself throughout the artistic world, especially the world of painting. The countries markedly affected at that time were France and England, probably the former more thoroughly. For in France the rejections of the Salon — which was in the hands of the Academicians — made it impossible for the young men of greatest ability to appear before the public. The Barbizon workers were a struggling group — though now acknowledged to be among the master-workers of the world — and the group in which Whistler, Manet, Monet, and other prime spirits were forcing their way as best they might found an outlet for their genius in the "Salon des Pas Perdus."

Into this spirit of revolt from the classic, both in England and in France, came an influence which not only helped to develop an immediate enthusiasm for greater refinement of beauty but produced results bringing notice to the apostles of this new cult of the studio. The French etcher, Bracquemond, came into possession of a part of Hokusai's *Mangwa*, — a book of many small sketches of the Japanese common people at work and at play. He drew around him a circle of the younger French artists — Fantin-Latour, Manet, Tissot, Monet, and Carolus Duran among the number — for the study of this remarkable work. But a few years later a shop in which stuffs, porcelains, and prints from Japan were sold — called "Porte-Chinoise" — was opened in Paris. Here the young men, already fired with enthusiasm for this newly discovered art, flocked, purchasing as freely as they might the exquisite cloths, vases, and drawings.

To Whistler, first among the group to develop his work obviously along sympathetic lines with Japanese figure painting and landscape drawing, we may look for the completest surrender to its influence. He first absorbed himself in reproducing his newly acquired garments, vases, rugs, and other studio materials in compositions like "The Lange Leizen — of the Six Marks: Purple and Rose," now owned by John G. Johnson of Philadelphia. Later this absorption influenced all he did.

But let us first study the Japanese landscapes given on this and the following pages as possible influences upon a more realistic art such as Europe and America have ever adhered to. With these influences in mind, we may more intelligently trace in the works of men of the French, English, and American schools of landscape painting the effects of the enthusiastic reception of these oriental delicacies of composition. The examples given are very largely the work of one artist, and are the outcome of many years of influence of the "Popular School" of art in Japan from its founders and its greatest exponent, Hokusai, down. They are, with the exception of illustrations 1, 2, and 3, the work of Hiroshige, one of the great Japanese landscape painters. Of this artist, who was born in 1786 and died in 1858, it is said "his perspective is as good as that of the Europeans." This is a very great concession, as Europeans are supposed to excel in this line of draughtsmanship. It is also an expression due to the lack of understanding of an art which uses only desired points and ignores anything not required to set forth the idea in mind — perspective as well as details of land, or features, or even the existence of feathers on a bird.

Beginning, therefore, with the headpiece, we find a view of the sacred mountain, Fujiyama, located so as to hold the lines of light in clouds and foreground. Mr. Arthur Dow of Columbia University first brought us from France the specific line analysis of a composition of this kind, — "opposition of line" in the horizon and vertical trunks. Mr. Denman Ross of Harvard taught us a broader analysis which enables us to find, beside this opposition (which he terms *balance*), harmony in the slanting movements of Fujiyama's graceful slopes, the leaning tree, the movement of the clouds and of the people. More, he shows us that each one of these slanting lines or progressions is a rhythm, — or a life-giving element to the composition. The beautiful relations of values we also understand through the "gospel" these two ardent men brought back after a long sojourn in Europe.

Figures 1 and 3 are "nocturnes" — which we might call fine Whistlerian expressions of tone composition if we were not assured they antedate his efforts by several years, and also that to such influences he undoubtedly owed something of his conception of low tones. Figure 2 is very wonderful both in line and tone. The exquisite drawing

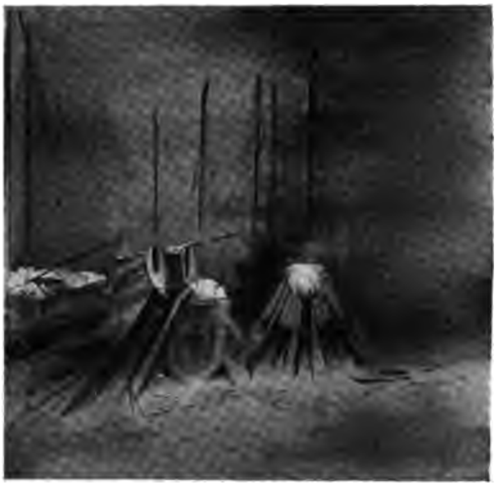


Fig. 1

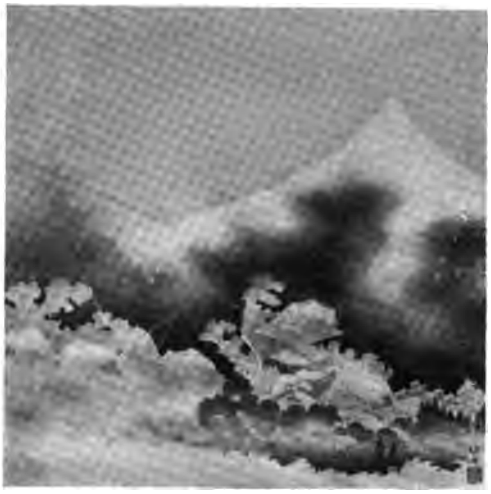


Fig. 2

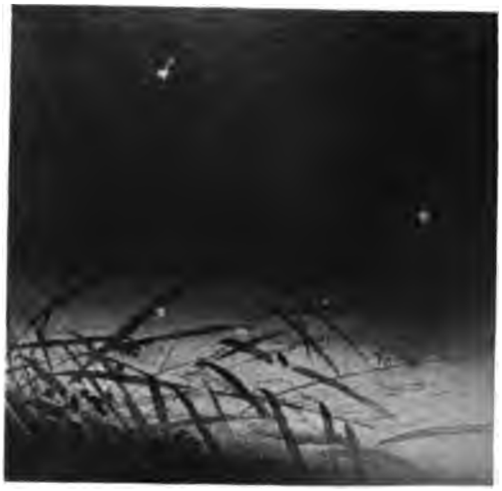


Fig. 3

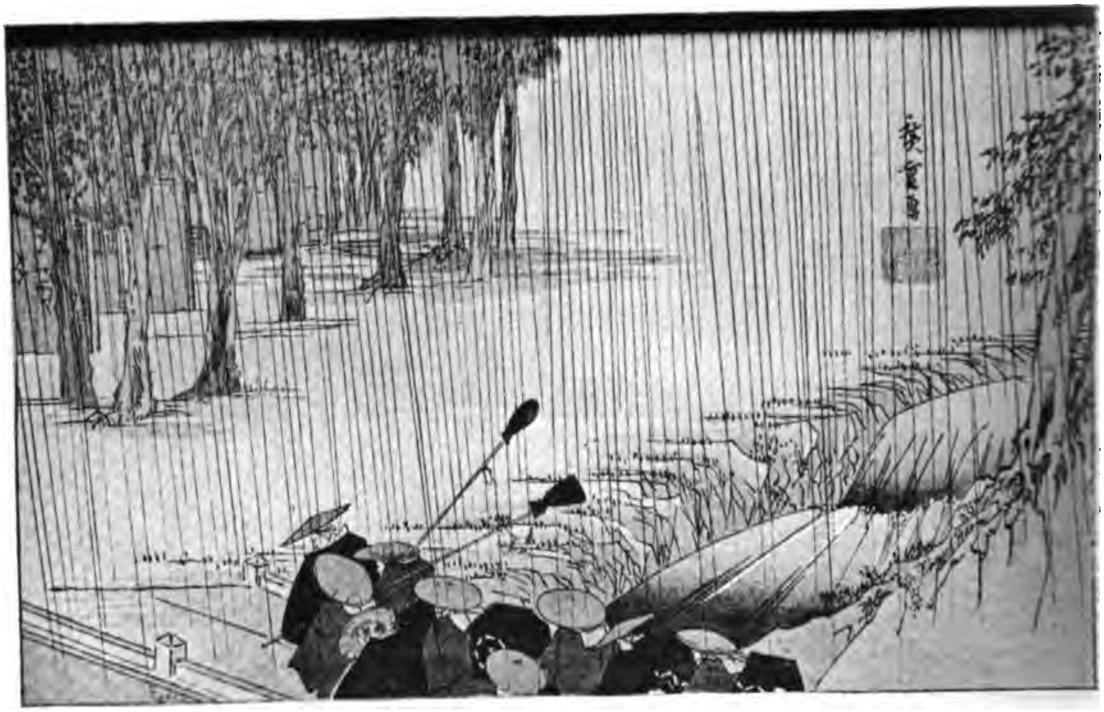


Fig. 4

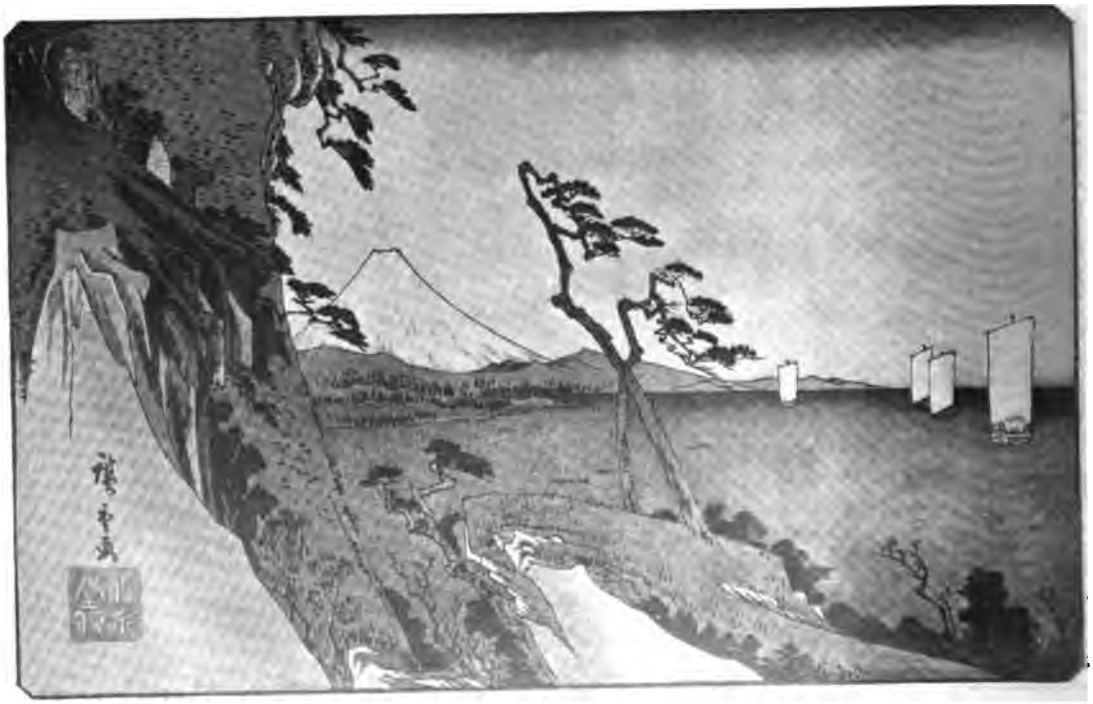


Fig. 6

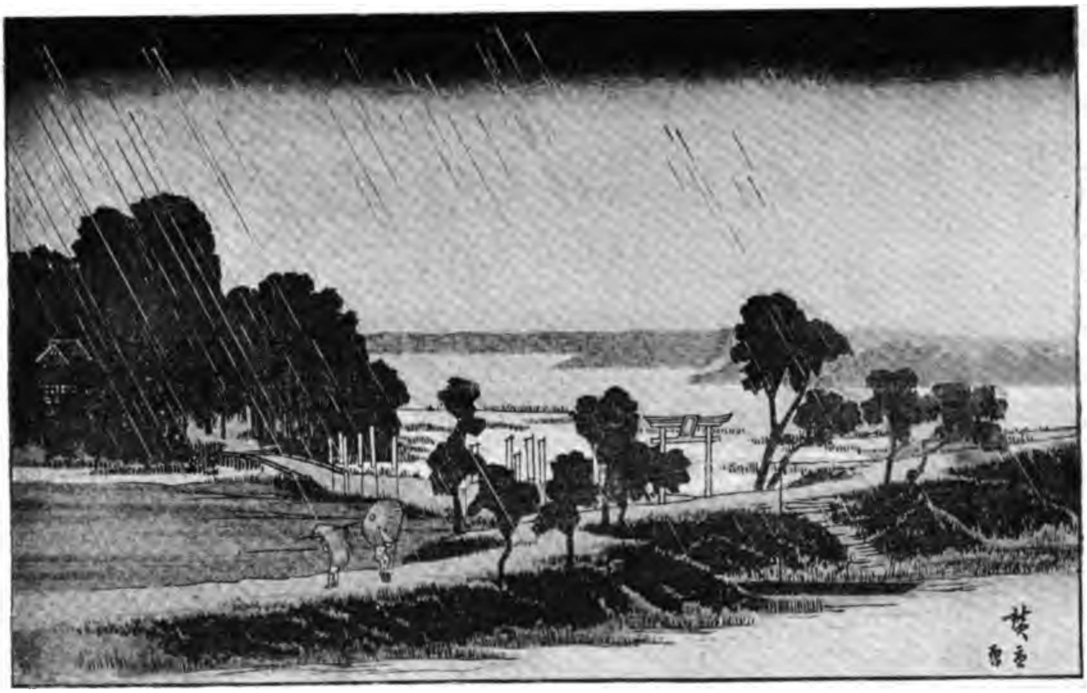


Fig. 5

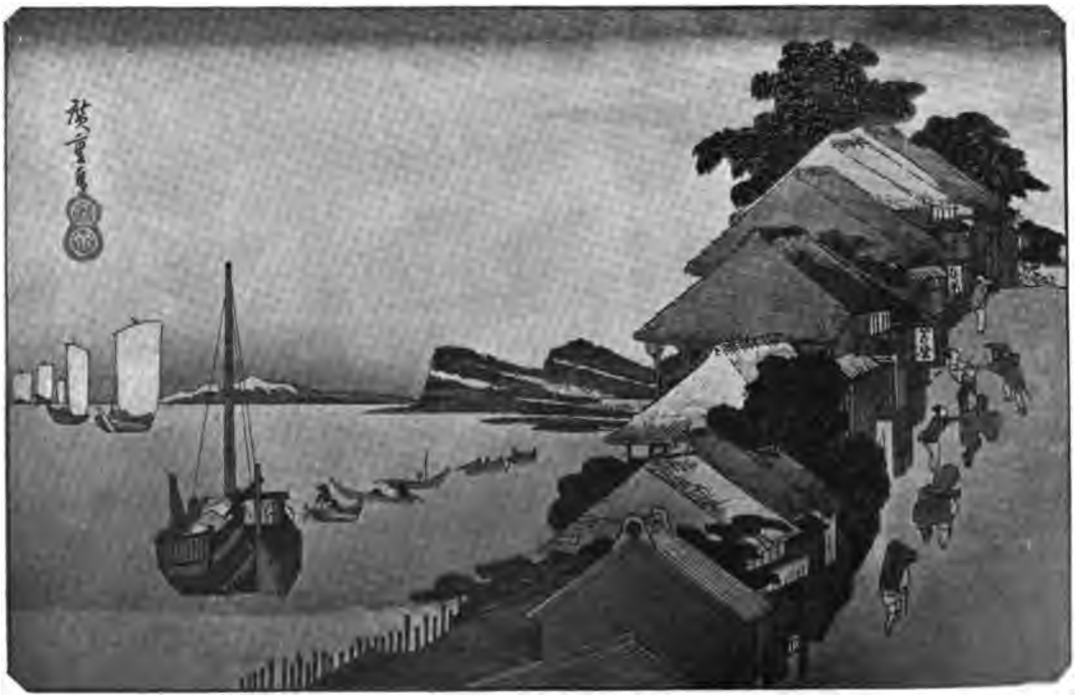


Fig. 7

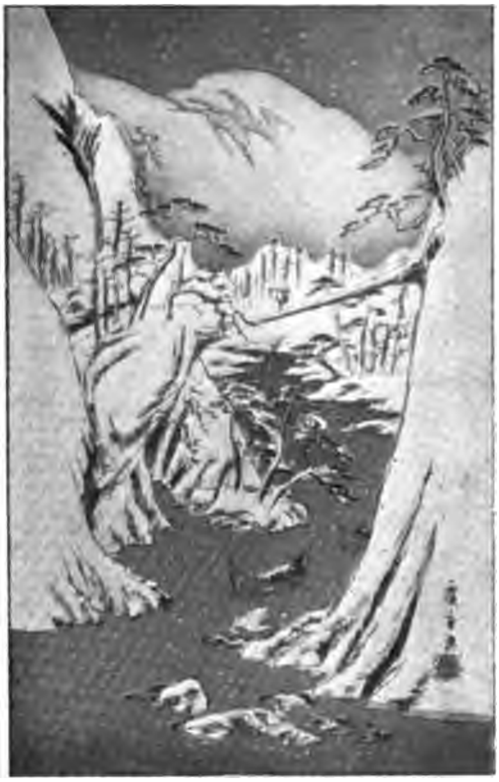


Fig. 8

The size of the boats alone show us the miniature character of this Alpine scene. The strength of drawing indicates greater mountain masses and a more considerable stream.

of Fujiyama and the excellent expression of the explosive force of the lightning are strong contrasts — and yet the line directions in the two are in complete harmony. The major movements of light and dark are striking. The power of the storm is marvelously well told. Above the fury of the tornado Fujiyama, the adored peak, rises in graceful calm, lifting its summit into the serenity of the sky.

Figures 4 and 5 show the power of the Japanese artist to represent rain. In the former, down pelts the drenching summer shower in the midst of sunshine. In the latter, the long-threatened rain is driven by a sturdy wind, and beats mercilessly against the unfortunate traveler. By keeping the scene very open and clear, opportunity is given to express this action of the elements. In Fig. 4 the line composition is most worthy of attention. Horizontal opposes vertical, first of all, as the principal structural necessity in this open landscape. The strong slanting movement of the trees and stream are well opposed by the line of the figures crossing the bridge. In Fig. 5 the slanting lines of the landscape are opposed by those of the driving rain, — cleverness rather than strength. The line of the gate and topless pergola leading to the temple in the woods is another and stronger opposing movement to the slanting lines running with the long causeway across the stream. This is a good composition, though its features are less strongly marked than those in its mate.

Figures 6 and 7 are associated because of the similarity of grouping of the masses, — a large foreground mass on one side and a middle-ground mass near the center so placed as to force the distance. Otherwise, structurally, the two compositions differ, Fig. 6 depending on the contrast of upright and level lines and Fig. 7 upon the opposition of slanting lines. Both are unique and forceful compositions. In the latter drawing the continuation into the dark sky mass of the strong

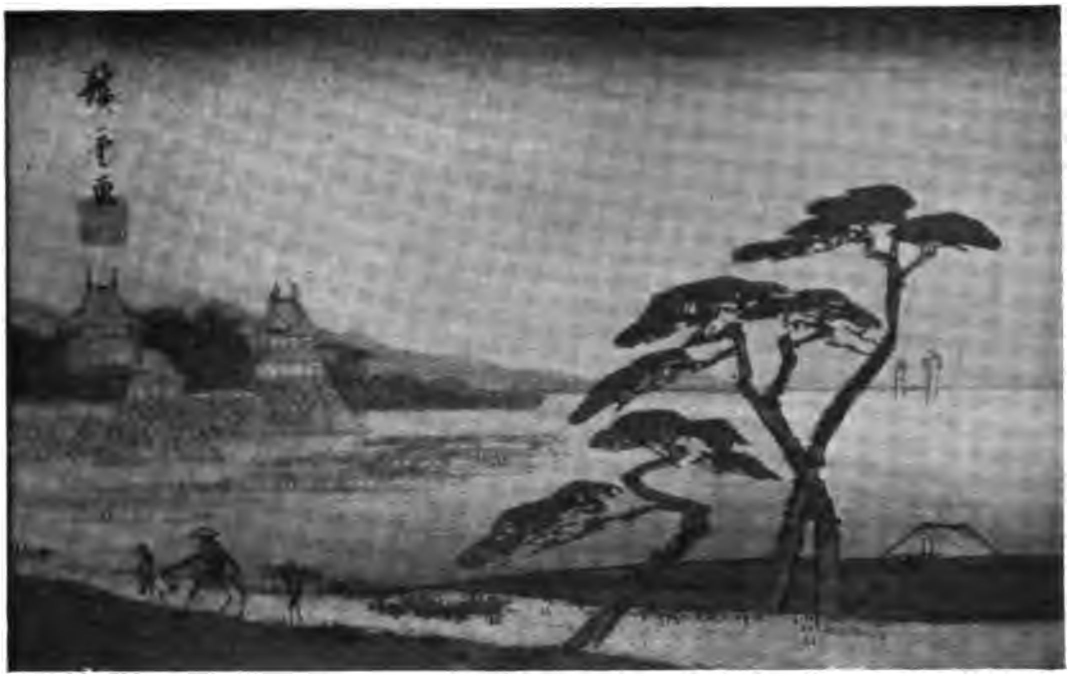


Fig. 9

shape made by the row of houses and interspersed trees through the overlapping of the last tree and the dark cloud back of it is a vigorous and clever piece of drawing. The repetition of the street mass in the line of boats and again in the distant masses of mountain and cliffs between sky and water is very well arranged, as also the relation of the lofty sky mass and the trail of boats coming in from sea.

Figure 8 is a grand drawing of snow-clad peaks and tortuous stream. The great masses at left and right force the perspective just enough to hold the distant mountain well back in the scene, and the causeway leads the eye to the break in the massive range. Truly, Hiroshige's perspective *is* as good as that of the Europeans! And we may safely add, it is far better managed, artistically, than that of most Western draughtsmen. Figure 9 is a good example of ***principal and subordinate.*** The trees are all-important, by place and size. Even the pagodas at the left are relegated, definitely, to a second or subordinate relation in the composition. Last of all, the tailpiece is a beautiful specimen of two opposing directions leading both the eye and the fancy far, far away. It is as "Farewell!" to the manifest "Hail!" of the headpiece.

Having given this fairly full description of the characteristics of the Japanese prints, it remains to show how we are being influenced by all this charm and beauty. As has been said, Whistler, more obviously than any other, followed Japanese art till he absorbed its principles of line and tone arrangement. His nocturnes have the subtility, the mysticism, and the subdued splendor which can be found nowhere else than in the art of these brightest people of the East. "The Falling Rocket" is one of the best known of this group of drawings. His appreciation of the character of line used by the Japanese equals that of their refined colors and values. Figure 10 shows this, admirably. It is a tracing from one of his many etchings. And one more point Whistler, above all who found help in this special oriental art, gained, — never to use a superfluous line. Herein the delicacy and refinement of his art is most manifest — he was the high priest of exclusion. As to Whistler's influence upon later art, it is boundless. It first took the form of close imitation, and

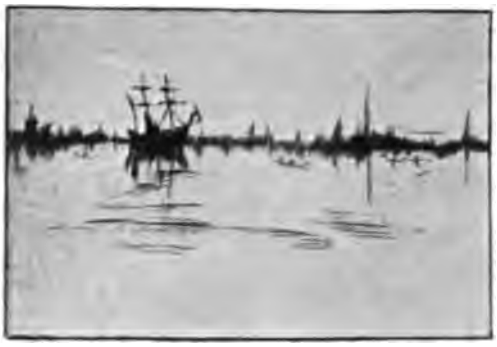


FIG. 10. This type of Whistler's work was a standard for water-color composition in America for many years

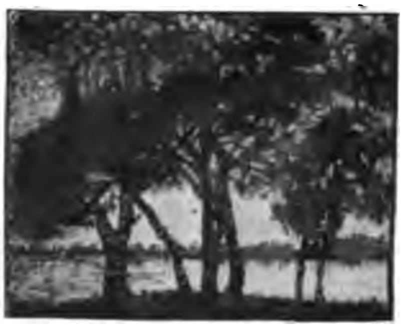
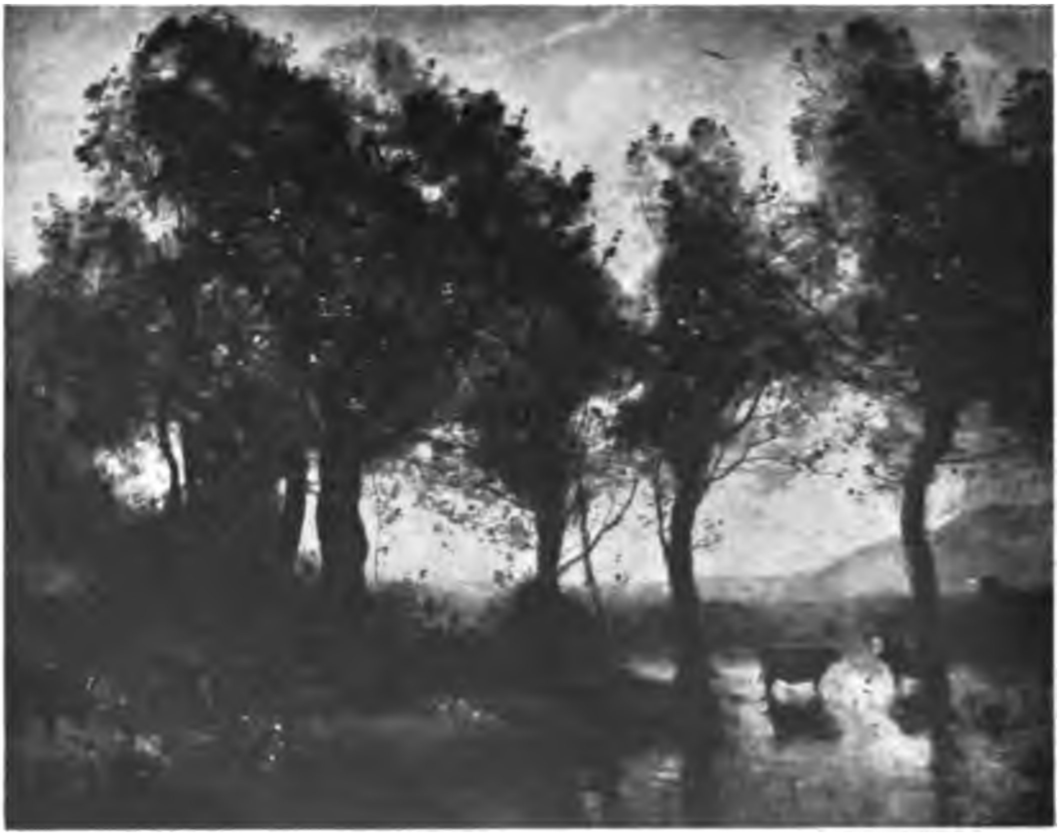


FIG. 11. Monet is an indefatigable investigator as to line and tone combinations. These "Pines" are evidently under Japanese inspiration.

A rare instance of departure from the well-known "principal and subordinate" tree-masses at the left and right in a Corot landscape. Japanese landscapes frequently show this procession of trunks moving horizontally across the space, but there is no European prototype of such arrangement.



L'ÉTANG Fig. 12 JEAN-BAPTISTE COROT

those who learned to paint twenty-five years ago were pretty thoroughly trained in grayness with a little color infused into it. Later it has become a broader influence and a, consequently, greater force.

Every French painter for many years after 1860 did more or less work showing the influence of Japanese art. Monet's "Pines," of which Fig. 11 is a translation, and Corot's "L'Etang" (Fig. 12) are examples of its influence upon their composition. Repetition, a principle of arrangement of which most of the prints are exponents, is here shown in the work of both Monet and Corot. There is a fine Manet, "Boulogne Harbor — Night Effect," composed in this style. Manet's drawing is a *nocturne* of note as well. Many a Cazin shows the street as in Fig. 7, and he was, besides, as strong an apostle of grayness as Whistler himself. Lerolle, whose work is as familiar to us as Cazin's, more intimately follows the same influence.

While these first enthusiasts show in their work, generally, only a strong flavor of this influence, they still were thoroughly imbued with its spirit. In their teaching, more than in their painting, was the Japanese influence handed down. And in this dealing with the work it was reduced to principles and made a fundamental in the studio training of the present generation. By means of this form of transmission, as well as by the general influence of its earlier years, Japanese art amalgamated with western ideals is brought by men like Mr. Dow, Mr. Ross, and a host of lesser lights to help us make new landscape forms and to see the world of painting "move" once more. It has also brought to us the appreciation of Japanese prints and given us power to use them wisely.

Previous to this later infusion of art principles, the photographer had made it difficult for the artist to explain why his imitation of nature was art and that of the camera not art. But the later strivings in that field of composition which points back to the date of the discovery of the *Mangwa* of Hokusai wrapped around some destructible objects sent to an engraver in Paris, again lifts painting — and landscape art in particular — above the work of the imitator of any class whatever. True, the latter-day management of the camera is again putting the master of the brush to a strong test in all general lines of representative art. The painter can only keep in advance by superior effort in creative work so far as line and value composition are concerned. In color composition alone, he has, so far, the whole field, — though color photography has a fair beginning. It seems a case where the "race is to the swift" and the "battle to the strong."

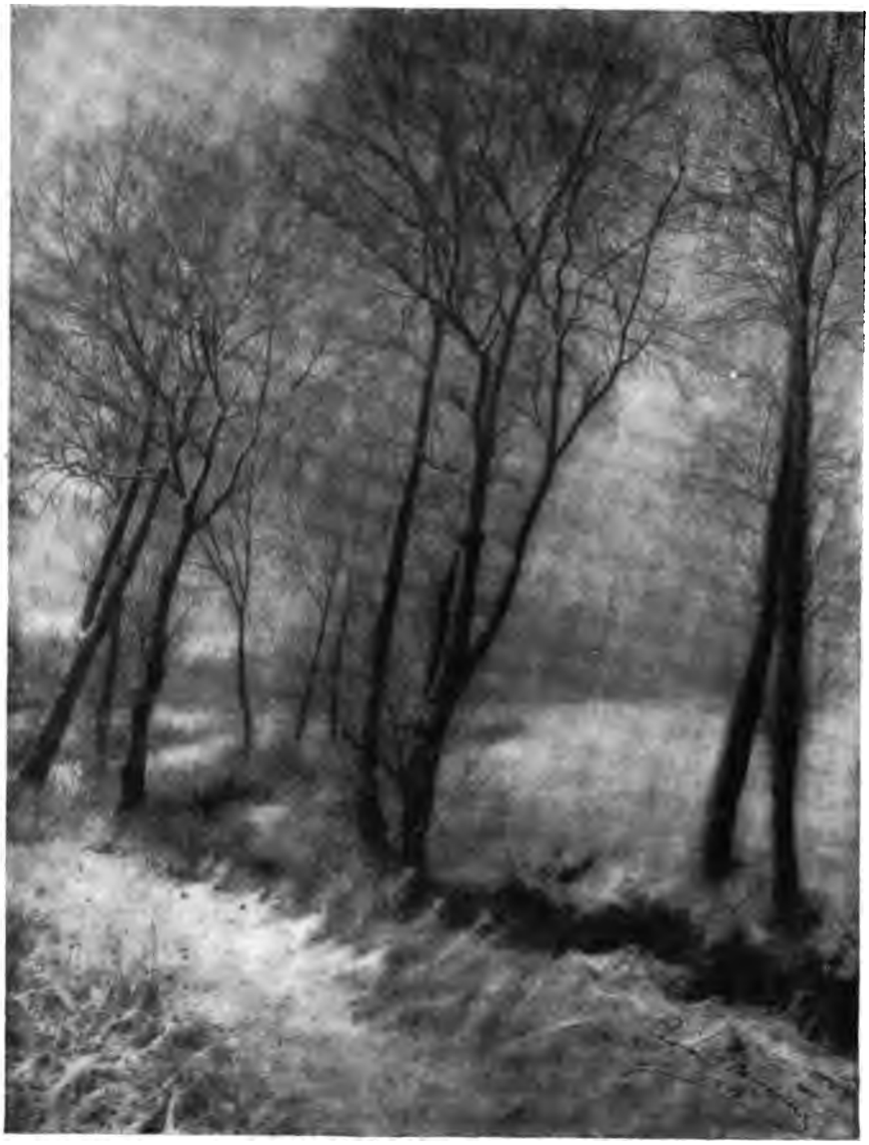
THE LONDON SALON OF PHOTOGRAPHY

H. SNOWDEN WARD, F. R. P. S.

PHOTOGRAPHIC "politics" are none of my business, but just a few lines on the genesis of this new "Salon" seem necessary. In the winter of 1892 a small body of pictorial workers was formed in London, to protest against alleged incompetence of the selecting committees of the Royal Photographic Society and their indifference or hostility toward pictorial effort. This body crystallized into the Linked Ring, and established the Photographic Salon, in the autumn of 1893. For many years the Ring and its Salon did excellent, splendid work. Some four or five years ago dissension began to creep in. Many of the members had ceased to be active exhibitors, others were said to be slow and unprogressive, and the most advanced men began to murmur that the Salon was in the same state as the Royal had been when the protest began. Various efforts were made to remedy matters. In 1908 the members as a whole (who had formed the selecting committee) chose a strong small committee of selection, which gave us a small exhibition, mainly consisting of the work of some eight men, — ten pictures by each. This gave dissatisfaction, and 1909 saw a more catholic selection by a larger committee, which gave dissatisfaction in its turn. After the last exhibition there was much conference. The forward party argued that for general purposes, encouraging young photographers, and so forth, the Royal show in its up-to-date state was all-sufficient, and that the only useful exhibition that could be arranged by the Ring, would be a small ultra-select one. Others wished to continue on old lines, with the widest possible invitation, and an effort to represent all phases of pictorial work. On a vote, it was decided that the Ring should hold no exhibition this year, but that members or groups of members should be at liberty to act as they pleased. The decision was by a bare majority, and the minority at once formed the London Salon of Photography, consisting of members of the Linked Ring and others, to hold an exhibition annually until such time as the Linked Ring should again decide to do so. In this party was Reginald Craigie, honorary secretary of the old salons, and the other British members are John H. Anderson, Ernest R. Ashton, A. H. Blake, M. McCadby, Charles H. L. Emanuel (honorary secretary of the Linked Ring), Frederick H. Evans, E. O. Hoppé, Charles Job, Alexander Keighley, Arthur Marshall, F. J. Mortimer, Ward Muir, Frank H. Read, J. B. B. Wellington, and myself. The original foreign members are: C. Yarnall Abbott (Philadelphia), Sydney Carter (Montreal), Rudolf Dührkoop (Hamburg), Bernard F. Eilers (Amsterdam), A. Erdmann (Munich), Otto Ehrhardt (Coswig), Hugo Erfurth (Dresden), Frank Eugene (Munich), F. Benedict Herzog (New York), Theodor and Oscar Hofmeister (Hamburg), Gertrude Käsebier (New York), F. Austin Lidbury (Niagara Falls), H. Mortimer-Lamb (Montreal), Leonard Misonne (Gilly), Paul Pichier (Vienna), and W. H. Porterfield (Buffalo). This body arranged the London Salon of 1910, with the help of a number of general exhibitors in carrying it through.

The principal members of the Linked Ring who objected to an exhibition, and therefore held aloof this year, are: J. Craig Annan, Malcolm Arbuthnot, Walter Benington, Alvin Langdon Coburn, George Davison, the Baron de Meyer, and Dudley Johnson. Of these, the Baron de Meyer and Coburn held their own two-man show in the Goupil Galleries, in the spring; and Arbuthnot is arranging a one-man show for the Vienna Camera Club. All of them, I believe, are to be represented in Mr. Stieglitz' exhibition, at the Albright Galleries in Buffalo.

In moving to the Galleries of The Fine Art Society, 148 Bond Street, London, W., the London Salon makes a distinct bid for the attention of art connoisseurs and picture buyers, for it is one of the most successful selling galleries. It should bring photography before a new section of the public, and the only disadvantage (which affects the R. P. S. exhibition in even greater degree)



WINTER
LEONARD MISONNE, GILLY

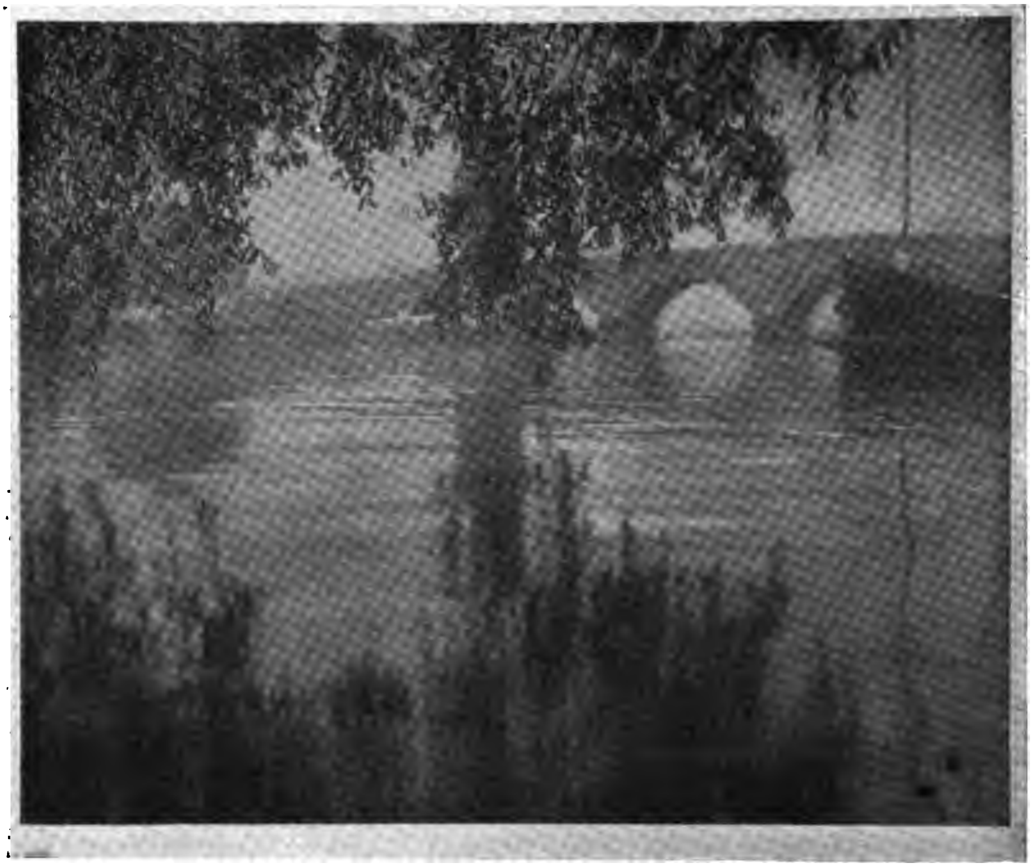
THE POOL OF LONDON **JOHN H. ANDERSON, BARNES**

is that the time of the shows has fallen in the deadest part of the London off-season, because suitable rooms could not be hired at any better time.

It would be futile to argue that the exhibition suffers nothing from the absence of the half-dozen strong men who are standing out, but it says very much for the strength of the reserve when one can say, without any hesitation, that we have the strongest and best show that has ever been held in this country. What a splendid showing photography might make before the world if only we could once secure complete cooperation of all parties and sections!

A hundred and thirty-nine pictures are hung, from seventy-six exhibitors, of whom twenty-five are members (with seventy-two pictures) and fifty-one non-members, with sixty-seven pictures between them. Rudolf Dührkoop has no less than eight frames, Anderson, Evans, the Hofmeisters, Hoppé, and Keighley, have four each, while no other member has more than three. When we remember that these include A. H. Blake, F. J. Mortimer, and Frank Read, each of whom contributed more than the accepted prints, and all of whom were active in the selecting, it will be seen that there was a determination not to allow the work of the members to dominate.

America, including Canada, has eight representatives, — a number that would probably have been much larger but for the fact that a whole consignment of American work, entered from the exhibition at Buda Pesth, was delayed in transit and arrived after the selecting and hanging were completed.



THE BRIDGE FRANK H. READ, TWICKENHAM

One of the Americans who is warmly welcome after an absence of just ten years from all exhibitions, is F. Holland Day, whose one entry, a triptych entitled "The Prodigal," is a wonderful embodiment of all the dreary desolation and weariness that must have oppressed the elder son of the parable when he came to himself in the far country. It is almost hypercritical to find any fault in such a work, but I do regret the use of a portion of the subject in the main picture to form the third compartment. Such a method is just a little irritating, for it directs some attention to the method, and away from the message of the picture.

An ex-American, of whose work too little has been seen in England of late years, is Frank Eugene. His portrait group and his "figure study" in antique costume are much appreciated, but his Adam and Eve, which was entered and is catalogued, suffered from delay in transit, and was much missed at the opening.

Mrs. Käsebier is represented by two quiet, restrained, intimate studies, — one in a soft series of low tones, and the other in an arrangement of silvery grays. Simple, unpretentious "Human Documents" as she calls them, they are great in their calm, their truth, their absolute fitness. It is noteworthy that the Misses Parrish, of St. Louis, friends and students of Mrs. Käsebier, are, as one of the newspaper men puts it, "much more Käsebierean than their mistress" with their two pre-Raphaelite studies of curving soft-toned, softly outlined draperies. C. Yarnall Abbott has two of his mystic, wayward phantasies, that bring one back again and again to puzzle out the meaning beneath the series of curves, and F. J. Brougière has the only pure landscape from your country.

J. Mitchell Elliott has two triumphant essays on figure subjects in strong sunshine, in "Voices," a sweet-faced maid in the attitude attributed to Joan in Domremy when she received the heavenly inspiration, and "The White Rabbit," — a most involved arrangement of several sun-lit children and one sun-lit bunny which calls one back again and again, and enforces admiration, though it is most difficult to disentangle the parts and get at the facts.

H. Mortimer Lamb shows a good two-figure nude, "The Brothers," an excellent group of a mother and two children, and a "Mother and Child," of which one can fairly say that it is well able to stand comparison even with the Dührkoop treatments of the same subject.

W. H. Porterfield, the remaining American, gives us "A Modern Babel," but his great work is the "Nocturne," an impression of the Albright Galleries, Buffalo, a treatment worthy of the fine subject and of Porterfield's reputation.

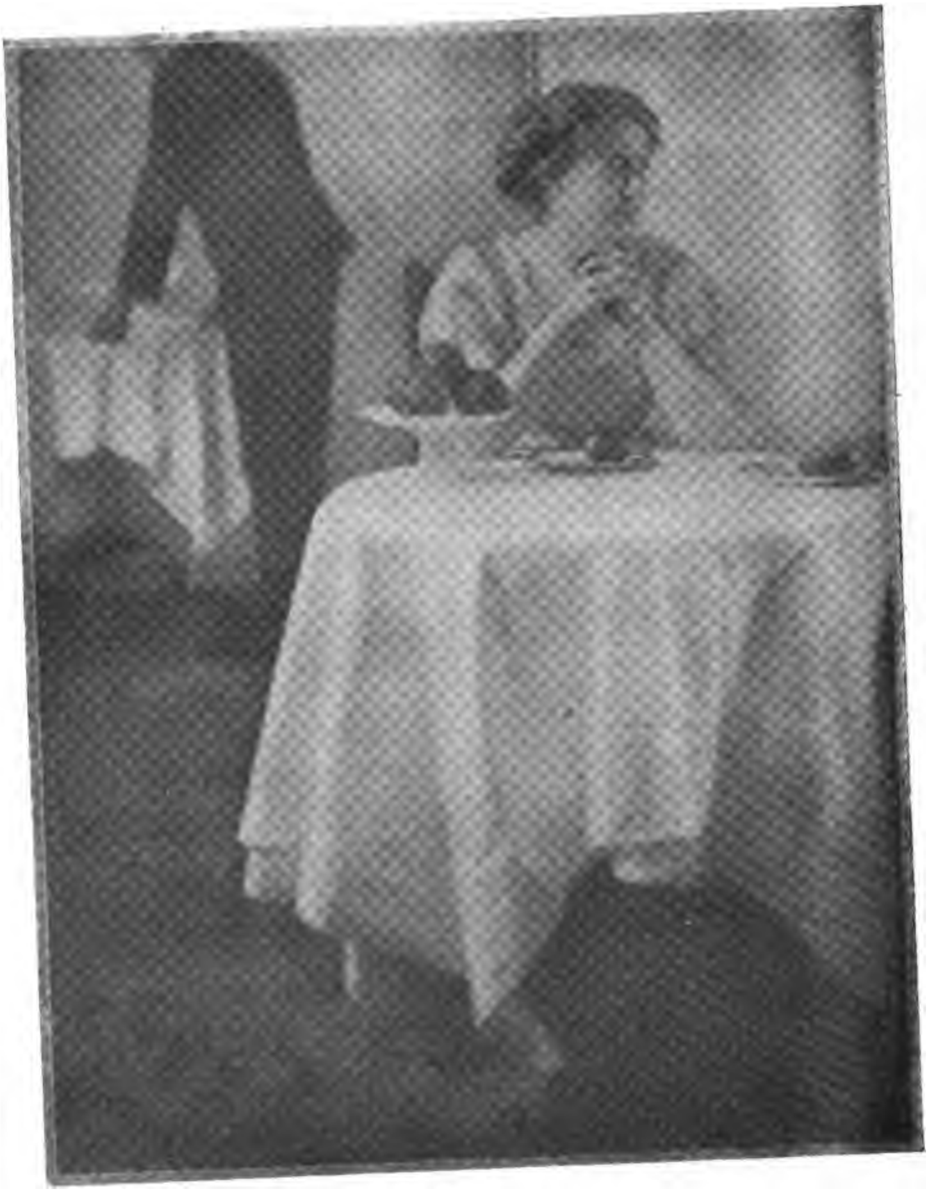
To turn to some of the British and Continental exhibitors. It is an interesting fact that when the jury at Dresden last year wished to give the one highest award in that great international exhibition, they were unable to do so, because they could not decide between the claims of Bernard F. Eilers (Holland), Leonard Misonne (Belgium), and Alexander Keighley (England). Each of these is a member of the London Salon of Photography, to which the foreigners each sent two, while Keighley has four frames, — and two of them are represented in our reproductions. Misonne's peaceful landscape with cattle, and his "Winter" (which is reproduced) are simple, unexciting essays which come near to the soul of truth by the route of fine, straight-forward technique. Eilers' two landscapes are softer and more tender, and two of Keighley's things are so stupendous that they can only hang in a room of noble proportions, and in the salon are obliged to share an end wall with equally big (in every sense) things of Paul Pichier. Keighley's pastoral "Under the Greenwood Tree" is chosen as more suitable for the quiet of a printed page and the gray of the half-tone image.

F. J. Mortimer is ever fresh. This year his "Harbour" and "The Shadow of the Mill" are daring and decorative, while his portrait of Austin Lidbury, worked in colored oils, is a good suggestion to the professional who has the courage to carry out such work—and the capacity. Hoppé, again, is simply astounding in his restless energy, his quantity of output, and his versatility. Only a few months ago he had a one-man exhibition at the Royal Photographic Society, when he filled their rooms with work that was all recent, and mostly quite new, but this did not prevent his having something quite original and good for the Salon. His "Flirtation" is exquisite in its cleverness, with just a touch of Hogarthian homily, and "Le Dessert" is a quite delightful little capture. The pose and expression of the lady, as she leans on the little restaurant table, full of interest in the conversation of her companion, who is not included in the picture, give quality as a portrait in addition to the general pictorial interest.

Arthur Marshall is not so fertile as in most recent years, but his "Scotch House, Veere" is a fine rendering of architectural texture, while "Boers" is an effective grouping of peasants and horses. Evans has two architectural pieces, in his best vein, and a woodland glimpse in "Deerleap Woods" that well suggests the favored haunt of George Meredith. A. H. Blake's great work is "The Sphinx," a powerful treatment of one of the supporters of Cleopatra's Needle on the Thames Embankment; a night scene suggesting the impressive, impassive calm and mystery of the original sphinx.

John H. Anderson and Frank H. Read, two of the newer recruits, are well represented, in totally different ways. Anderson's "Pool of London" (reproduced) is typical of his love for strong, rich shadows and well concentrated high lights; while Read's "The Bridge" is illustrative of the warm, soft, shimmery sunshine effect that Read throws over almost everything.

If the British section is weak — as it undoubtedly is — in pure portraiture, this phase of work is well represented by the Americans, Germans, and Austrians. On the whole the exhibition is



LE DESSERT
E. O. HOPPÉ, LONDON

so exceedingly good that it sets one to wondering whether photography is yet fully abreast of some of the older means of expression, and one is forced to conclude that photography is still more competent than are photographers. We are not yet making the best of our process. It still suffers from the facility with which its results are produced, and from the fact that the photographer is not obliged to compare his picture, step by step, with the nature he is supposed to interpret. If he had to build up, as a draughtsman does, or even if he were made to take his print to the place it represents and to compare it with the original, we should find many a blank space filled in with suggestion of detail, many a range of tones modified considerably, and many a present-day picture withdrawn, to be replaced by something more carefully studied and more true.

AN EMULSION DEVELOPING PROCESS FOR FABRICS, ETC.

A. J. JARMAN

INQUIRIES are repeatedly made for a process or means whereby prints can be made upon good cotton fabrics such as sateen, or like material, as well as upon paper and celluloid, by exposure to gaslight or any light of moderate intensity and developed with one of the modern developers. Although prints of a kind can be made upon such material with a slow bromide emulsion, finer results by far can be made with a chloride emulsion prepared as here described, the deposited silver being of an intense black in the deepest shadows, while the half-tones are well rendered and the whites very pure. Any one who will take the trouble to prepare the emulsion will be amply rewarded for their time and effort. The material used in the line of fabric must be white sateen, that has been well washed in several changes of clean, hot water, then wrung out, stretched and dried, then flattened by carefully ironing with a very clean flatiron. The paper used must be of a good quality, the same as is used for the making of gaslight developing papers. Steinbach's, which can be bought at any art store, will answer the purpose, as will clean white matt surfaced celluloid, the surface being cleaned with a tuft of absorbent cotton and hot water, then dried before use.

Making the emulsion: —

Procure a clean half gallon crock, place therein, cut into strips, the following, —

Heinrich's hard gelatine	2 ounces
Distilled water	5 ounces
Chloride of ammonium	54 grains

Place this crock into a vessel of hot water, increase the heat until the water boils around the crock, stir the gelatine mixture well with a glass rod, then add the following: —

Distilled water (hot)	4½ ounces
Nitrate of silver	126 grains
Citric acid (crystals)	10 grains

Stir well until dissolved, add this to the gelatine solution, under a ruby light, a little at a time, stirring well during this addition. This mixture must now be stood aside in a cool place to set, or it may be stood in ice-water to hasten the setting. When quite cold and well set, it must be wrung through a piece of well washed coarse canvas by placing some pieces cut from the mass into the middle of the canvas, then by bringing the corners of the canvas together, holding the middle firmly in the left hand, then twisting the canvas with considerable strain, the emulsion will squeeze through the meshes in a rice-like mass. Allow this to fall into another half gallon crock two thirds filled with clean, cold water. Of course all these operations *must* be carried out under a ruby light. Squeeze all the emulsion through in like manner, allow it to soak for five minutes, then wrap the canvas *doubled* over the top of the crock, and tie it there, then turn the crock gently over so as to permit the wash water to drain off completely. Wash these shreds six or seven times in like manner

UNDER THE GREENWOOD TREE ALEXANDER KEIGHLEY, STEETON with very cold, clean water, making the final wash with distilled water. The last draining must be thorough. Remove the canvas, wipe the top of the crock clean and add two ounces of *pure* alcohol. (Use no wood alcohol, or denatured alcohol; any of these alcohols will spoil the emulsion.) Photographic alcohol only must be used. The object of this addition is mainly to preserve the emulsion shreds from decomposition. The emulsion may now be melted, or allowed to remain for the next day before using, to suit one's convenience. The crock may now be placed into hot water, upon a gas stove, and the water brought to a boil, stirring well with a glass rod meantime. Now turn off the gas, and filter the emulsion in the following manner: Take a clean kerosene lamp chimney, tie over the small end two thicknesses of well-washed cheese-cloth, press upon this a moderate size tuft of absorbent cotton, place this glass inverted in the ring of a retort stand, or through a hole cut in a shelf; place a two-pint milk jug beneath, previously made warm, then pour the melted emulsion into the lamp chimney. The emulsion will filter perfectly into the jug; a strip of glass should be stood diagonally in the jug so that the emulsion will fall upon it and so prevent air-bubbles. As soon as filtering is complete, the fabric must be stretched over a glass plate, — say, 11 x 14, — and held in position with clean wood clips, the glass plate having been previously warmed. The emulsion can now be applied with a rubberset camel's-hair brush, producing an even coating, then removed and laid back down upon a cold sheet of glass to become set, then placed in a dark closet to dry.

Paper may be treated in the same way or floated upon the emulsion until it lays flat; the paper must be previously made damp, to prevent undue curling. When coated, it must be drained for a few seconds, then laid back down upon a piece of cold slate, and when set placed aside in the dark closet to dry.

Celluloid can be coated in just the same way, taking care that no air-bubbles are formed; if they are, they must be dispersed by touching them with a corner of the coating brush.

As soon as the material is dry (take care that it is not exposed to any actinic light) it is ready to print.

PRINTING.—Arrange the negative in the printing frame, place thereon the sensitized material, then expose it to a 16 candle-power flat gas jet about a foot from the flame, move the frame about so as to even the illumination, then proceed to develop the image with the following developer: —

Metol or satropol	40 grains
Hydroquinon	20 grains
Hot distilled water	30 ounces

Dissolve, then add, —

Sulphite of soda (dry)	140 grains

Shake the mixture well, then add, —

Sodium carbonate (dry)	120 grains
Potassium bromide (ten per cent solution)	1 to 2 drams

When this mixture has become cold, it will be ready for use. Place the exposed fabric or celluloid in a perfectly clean tray, pour a few ounces of this developer over it. In the course of a few seconds the image will develop gradually, and soon acquire full development. It must now be rinsed quickly in clean water and placed in an acid fixing bath until completely cleared; then washed well in running water for half an hour and dried. The following fixing bath will answer the purpose well: —

A.	Hyposulphite of soda	3 ounces
	Water	15 ounces
B.	Common alum	120 grains
	Water	5 ounces
C.	Acetic acid (No. 8)	½ ounce

Mix all together after the alum has become dissolved. If a small quantity of the sulphur becomes liberated, it will prove no detriment.

DEERLEAP WOODS
FREDERICK H. EVANS, LONDON

THE MOTION PICTURE

Chapter V — The Stereopticon

STANLEY CURTIS

PRIOR to the introduction of the cinematograph, the stereopticon or dissolving-view magic lantern reigned supreme in the lecture and general exhibition field. The novelty of "animated pictures" appeared to supplant the beautiful dissolving-view effects of the stereopticon, in the favor of the public for several years, but to-day we may find a pleasing combination of stereopticon views and moving pictures in many of the leading theaters.

The dissolving-view stereopticon may be described as two separate and distinct magic lanterns, usually arranged one above the other, having perfectly matched condensing and objective lenses and fitted with shutters so that the light may be slowly cut off from one instrument while it is growing brighter in the other. If a slide is placed in each lantern and the shutters are operated, the one view appears to literally melt into the other.

A third instrument is sometimes placed above the other two for the purpose of producing lightning, cloud effects, rain, snow, insects, angels, and many other effects on the pictures produced by the lower stereopticons. In the hands of a competent operator, the triple stereopticon may be made to produce effects beautiful beyond description. One especially striking series of views

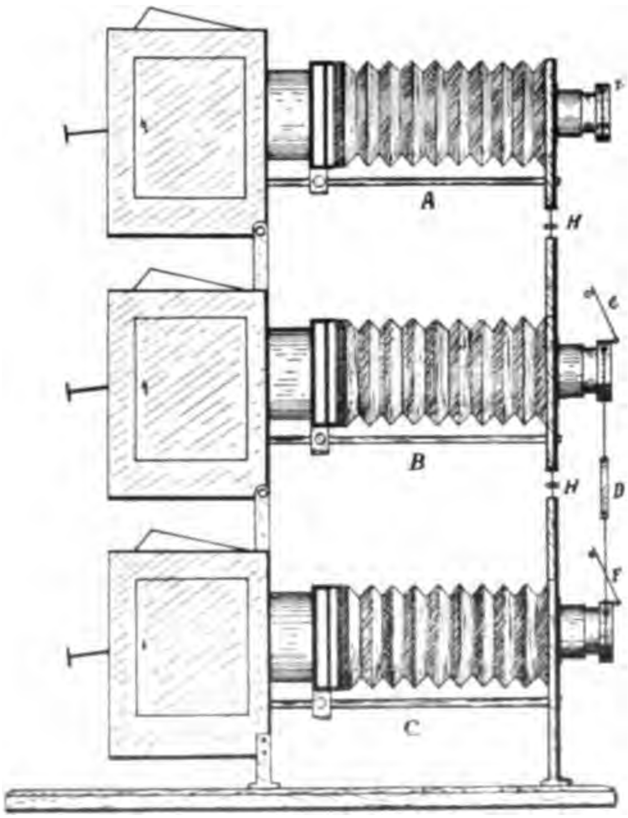


FIG. 19

Stanley Curtis
1910

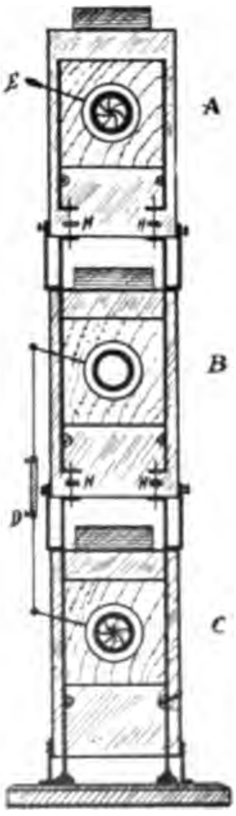
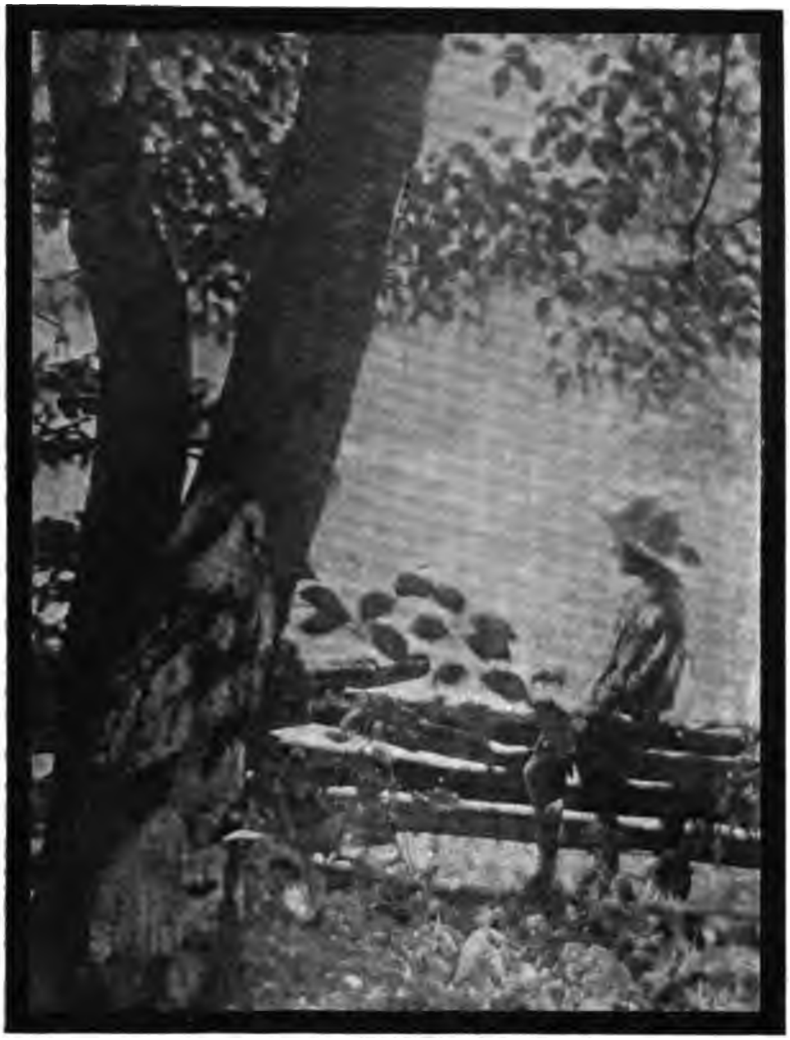


FIG. 20



THE TRUANT
C. BURNHAM, CLEVELAND
First Prize, Monthly Competition

the writer calls to mind is the "Rock of Ages" set. The various scenes are projected from the lower stereopticons, while visions of passing clouds, angels, etc., are flashed from the upper instrument.

For various reasons these highly artistic effects are seldom seen in the average motion-picture theater, the stereopticon in most cases being used merely for the projection of illustrated song slides. This condition of affairs may be attributed partly to the fact that the "up-to-date" theater manager is far more interested in getting one crowd of people out of and another crowd into the theater, than he is in presenting an interesting and entertaining show. Another reason for the lack of artistic stereopticon effects is this: the average operator of to-day scarcely knows how to manipulate a stereopticon in the proper manner. True, he can place the slides in their carriers and move the dissolver up or down; but how many times our eyes are offended by a big blue spot on the screen, while the "dissolving" is taking place.

Figures 19 and 20 show the general arrangement of a triple stereopticon. The iris diaphragm shutter is illustrated, as that is by far the best and most extensively used means of cutting off the light. The principle of operation is easily understood by reference to the drawings. The first slide to be shown is placed in instrument, B, and the handle, D, is raised; this permits the rays of light to pass through the objective and the view is thrown on to the screen. The next slide may then be placed in lantern, C, and the safety cap, F, raised, as the shutter beneath it is closed. By moving the handle slowly and evenly down, the view in C grows brighter and that in B fades out.

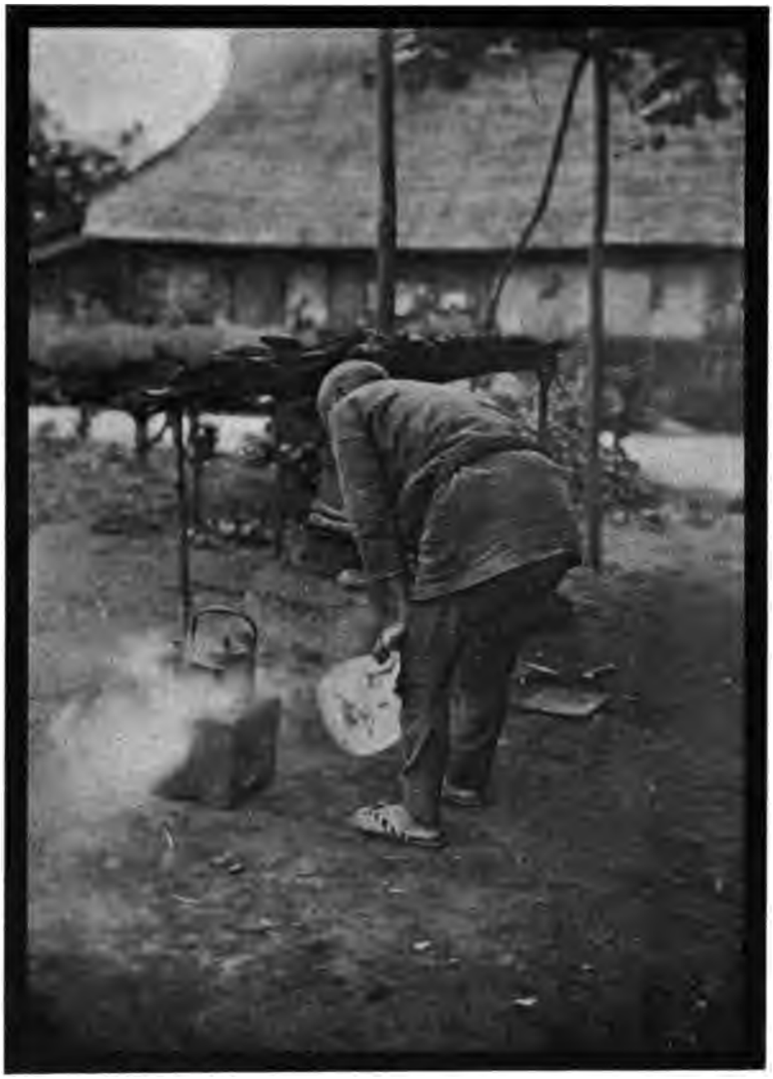
The action of the iris diaphragm is, no doubt, familiar to most readers, but for those who do not understand it, a glance at Fig. 21 will explain. In A the iris is open to the fullest extent: at B it is half closed; while at C, no light can pass. The advantage of cutting off the light equally from all sides may be readily seen.

The third or upper lantern, A, has an independent shutter operated by lever, E, and from this instrument the various effect slides are projected upon the views shown by the lower lanterns.

Oxy-hydrogen gas or "lime-light" was used extensively a few years ago for dissolving stereopticons, and is still used in those rare instances where electricity cannot be obtained. The dissolving was done by an automatic valve which cut off the gas from one lantern and turned it on in the other. Unless well made, these valves frequently cause no end of trouble. The writer will not take up the subject of oxy-hydrogen light here in detail, as its use is prohibited by the authorities in many states, in connection with or even in the same booth with a motion-picture machine using celluloid film.

A slide carrier, usually of the form shown in Fig. 22, is secured in each stereopticon. Most slides have a "thumb mark" in the lower left-hand corner to guide the operator, but he should never rely upon this mark implicitly, particularly in the case of a new set of slides, for the marks are sometimes misplaced; indeed they are often omitted entirely. The operator should therefore form a habit of glancing at each slide as he places it in the carrier. The slide must be ***upside down*** in the carrier, and the reading matter, if there is any in the slide, must start at the operator's side of the lantern. Figure 22 shows this clearly, and illustrates a simple rule by which the operator may guide himself. Holding the slide up before him so that the reading matter runs from left to right, the operator inverts the slide as shown by the dotted lines in Fig. 22. To the uninitiated it may appear that some of this explanation is superfluous, but when the operator has to place and dissolve sixteen slides for a quick march song, for instance, in the space of three minutes, and all of this in comparative darkness, the lay reader can readily see that he must have a quick and effective rule to follow, otherwise in the hurry, several slides might appear either upside down or backwards on the screen.

Each day before the performance starts, the careful operator will light up the stereopticons and see if the projected squares of light on the screen are perfectly "registered." To do this the



MAKING THE WATER HOT
HITOSHI YAHAGI, TOKIO
Second Prize, Monthly Competition

dissolving handle is placed in a neutral position, which permits an equal amount of light to pass from each lantern. If everything is properly set, only one sharp square of light is visible; but if such is not the case, a double square may be seen. The up and down adjustment is made at H, Figs. 19 and 20, and the lateral adjustment by moving the slide-carrier to one side or the other as necessary. This adjustment must be made with great care, as a movement of a sixteenth of an inch, even, is enormously magnified on the screen.

Probably the elimination of the blue spot, which appears frequently on the screen as the dissolving is done, has puzzled operators more than anything else in connection with stereopticon work. There are two principal causes for the appearance of this very annoying "ghost"; one, the most troublesome perhaps, is when the condensing lenses are not of the proper focal length to go with the particular objective lens with which they are used. It would be a difficult matter to give any set rule of focal lengths to guide the operator; the best way, perhaps, is to try out several sets of condensers, and when one is found to give a perfectly "flat" field of light on the screen with the diaphragm only partly open, the focus of that particular condenser should be ascertained and a note made of same. This will facilitate the renewal of the lens in case it should break.

The test mentioned above must be made in each lantern separately and without any light from the other lantern.

The other cause for the blue ghost may be when the illuminant is not correctly centered and focused. Assuming that the condensers are suited to the objective lens, the adjustment of the arc is simple. This adjustment is also made in one lantern at a time with the others dark. The diaphragm is opened fully after the light has been started. If a shadow appears across the upper part of the field of light, the arc is too high; shadow across the lower field, arc is too low; shadow to right or left, arc is too far to right or left respectively. When the arc is centered there may be a ring or fringe of blue or orange colored light near the edge of the field. This may be removed by moving the arc nearer to or farther from the condensing lens, as the case may be. After these adjustments are completed, the diaphragm should be partly closed and the adjustment carried on, as every little imperfection shows as the light is shut off by the diaphragm.—(*To be continued*).

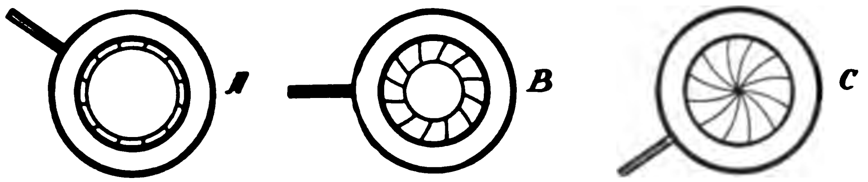


FIG. 21

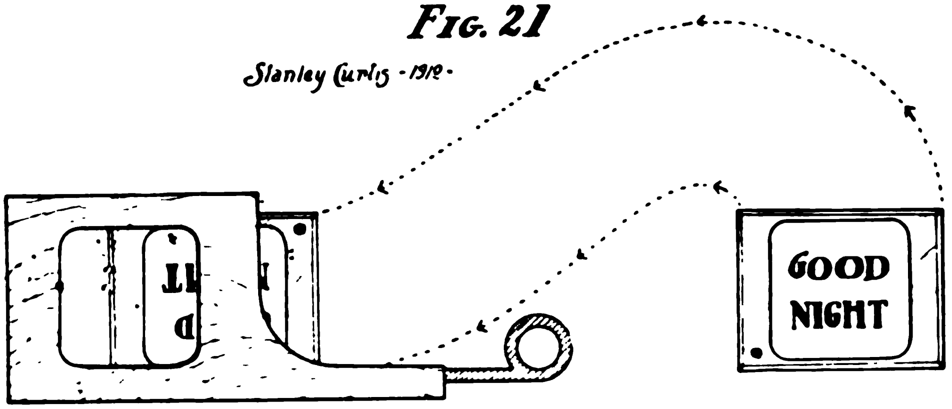


FIG. 22

THE HAPPY HOME KIYO OGURA, SAN FRANCISCO

Third Prize, Monthly Competition

ENLARGED NEGATIVES UPON GLASS OR PAPER

JAMES THOMSON

The SMALL print to be viewed at short range undoubtedly has its legitimate appeal, being most likely to find favor with the multitude rather than with the few. Nor is there much wonder that it thus admirably serves the purpose of the generality of photographic workers, the concentration of interest in a small space appealing most forcibly to admirers of detail, and the number is not inconsiderable.

To others, however, there duly comes the time when the desire for something large enough to have place upon wall or easel, and to be viewed at a distance, prompts resort to the enlarged print on bromide or gaslight paper, — the latter medium now coming into use for the purpose, having, as it does, many points in its favor over the other, not the least of them the abolition of the dark room in essential operation.

By either process excellent results are obtainable, and when properly worked effects of platinum quality are possible. This is now attainable through the enterprise of the manufacturers furnishing, as they of late have, every conceivable variety of surface effect, as well as grades of contrast to suit all classes of negative.

Resort to such developing papers, however, limits one's choice to a single process, and that one based upon the silver salts. Such emulsionized papers are coated over a substratum of baryta, which, filling up the pores of the web, makes for uneven drawing power. The result of which is, in mounting one has great difficulty in keeping the cardboard base flat.

This, and the limitation imposed upon the worker, is apt to render some of artistic impulse and sensibility restive under such restriction. Carbon, platinum, kallitype, and kindred processes have each their special appeal for such workers, the results more nearly approximating in effect the skilled creations of the hand worker.

Made on thin, unemulsionized paper, the print is easy to artistically mount, even on cover paper, a pat of paste at the corners being all that is required to hold it in place, — a great advantage over bromide or gaslight print medium.

In view of these propositions, therefore, there arises the question, "Which shall it be, enlarged print or enlarged negative?"

Where but a single print is required, recourse may be had to bromide or gaslight paper. When there are a number of copies wanted, or where one desires unlimited scope as regards printing process, then undoubtedly must the enlarged negative have choice. Having the latter, we may run the gamut of photographic pictorial expression, without we are limited to a single process, and that one based upon the salts of silver and impermanent when compared with carbon or platinum.

As a preliminary in the production of the enlarged negative there is required a positive transparency, either on glass or carbon tissue. The usual mode is to have this positive the same size as the negative and made by contact with the latter in the printing frame precisely as is the case where a velox print is involved, only essential operations are conducted in the dark room when the sensitive plate is employed.

An alternative plan is to make the positive the full dimensions of the negative by enlargement. The small negative is placed in the holder of the enlarging apparatus precisely as is the case where bromide paper is involved, and exposure made. On development there results a beautiful positive image on glass.

I propose to here describe my own method of working in the making of enlarged negatives, and presuming negatives are of about the same density as mine, other workers in following instructions should have equally satisfactory results.

I make the positive by contact upon a Seed 26 plate. In the dark room the negative is placed in the printing frame in the customary manner, and film down over it the sensitive plate, above all a sheet of black needle paper, then the whole is held secure by springing the frame back into place, and we are ready for exposure.

Exposure is made with a lighted match (parlor matches that light upon the box are used). Matches of Swedish manufacture, in length two inches. When about to expose, the match is ignited and held while it burns in front of the printing frame. The exposure is governed by the duration of the burning of the match while being held between finger and thumb, the exposure continuing just as long as the match can be comfortably held without burning the fingers.

Distance from the source of light is governed by the density of the negative, a rather thin one requiring a distance of 24 to 30 inches, a medium one 18 inches, and a dense one 12 inches. These figures are based upon my own negatives which are of the pictorial order, thin, but with a full range of gradation from absolute black to white.

In practice I have found this method to be simple, certain, and effective. One very quickly learns from the appearance of a negative how far from the light to hold the frame. So skeptical was I in regard to so small a light doing the work in so short a time that I over-exposed the first two plates by holding the frame too near the light.

FAST FALLS THE EVENTIDE **JAMES THOMSON, DORCHESTER**

Honorable Mention, Monthly Competition

If under-exposed, get 6 inches nearer. If over-exposed, hold back 6 inches. Furthermore, it is a good plan in exposing to slightly move the frame about, giving it a circular motion, so that all parts of the image may be favored equally. This is the more necessary where negatives larger than 4 x 5 are involved.

For success much depends upon the quality and suitability of the positive. It should have full exposure, be thin, though with a full range of gradation, and no part of the shadows must be represented by clear glass. The deepest shadow must have a slight veiling, a *just visible* deposit of metallic particles. The positive in fact should resemble in density a negative that has been over-exposed, where not even the highest lights show much opacity. A contrasty positive is useless.

Should the positive prove to be too thin it may be strengthened by changing the color to a brown through toning by the sulphide process. Any of the redevelopment preparations upon the market will answer. Intensification by any mercurial process is not to be favored, as the tendency to cause a crop of pinholes is ever present.

Any developer may be used, providing it be adequately diluted, the M. Q. solutions, for example, by the aid of which Cyko, Argo, and similar development papers are treated. Dilute with from one to three parts of water.

I am now developing positives with the following pyro-metol formula, which gives a clear, clean image when fixed in an acid bath. Those who object to pyro may substitute ortol.

PYRO-METOL DEVELOPER

A.	Water	16 ounces
	Metol	25 grains
	Sulphite of soda (dry)	240 grains
	Pyro	60 grains
	Bromide of potash	10 grains
B.	Water	16 ounces
	Carbonate of soda (dry)	360 grains

Normal development use 1 part A, 1 part B, and 1 part water. For soft effects use 2 parts water.

For an M. Q. developer that works clean and keeps well the following is excellent: —

Water	16 ounces
Metol	25 grains
Sulphite of soda (dry)	240 grains
Hydroquinone (or preferably adinol)	50 grains
Carbonate of soda (dry)	240 grains
Bromide of potash	8 grains

For normal development use 1 part solution and 2 parts water. For soft effects double or triple the volume of water.

Personally, I prefer the color of the pyro-metol image.

The making of enlargements, whether on glass or paper, implies the possession or command of the necessary apparatus, for description of which — a simple daylight enlarger — see the April, 1908, number of this magazine. For fuller information regarding all manner of enlarging apparatus consult the *Photo Miniature,* numbers 87 and 100, "Bromide Enlarging made Easy" and "Enlargements from Small Negatives" respectively.

I personally use apparatus as described in the April, 1908, AMERICAN PHOTOGRAPHY, it being necessary in working to have full view of the image thrown upon the screen, to the end that modification may be resorted to when deemed necessary. Because of this, the portable enlarger is not so suitable, there being with that no available certain means of suppression.

Slow plates are advisable, those of about the same sensitiveness as bromide paper, which is advantageous for the reason that we may employ strips of the paper for light testing purposes, thus saving plates.

The speed of bromide paper differs but little from that of Cramer's contrast plates.

In practice I place the positive in the negative holder and cover the easel with a smooth sheet of "black needle," or yellow "post-office" paper. This is to prevent spreading of the light.

A piece of thick card cut to dimensions of the plate is then pinned to the board, then with largest opening, and a large reading glass in hand, as sharp an image as possible is focused upon the card, moving it one way or another as is necessary to get image the precise size of same.

This done, the f. 22 stop is substituted, the shutter closed and with light from the ruby glass window, the plate is carefully dusted (I use a soft worn linen handkerchief), the white card removed, and the plate placed in the identical position. It may rest on a couple of push pins at the bottom, then when appropriately placed one pin at the top will suffice to keep it secure. Needless to remark, the plate must be placed film side towards the source of light.

The exposure necessary having been accurately determined previously through the use of bromide paper, the shutter is next opened, and at the termination of allotted period closed again.

In reference to exposure it is impossible to be definite as to length. I can, however, give an example culled from personal experience, and this may furnish a basis upon which others may build.

Using Cramer contrast plates and a positive rather thin (no whites) upon a bright sunshiny May or June day, with f.22 an exposure of twenty-five seconds was correct. A more contrasty

HAZY MORNING AMONG THE HILLS DR. F. F. SORNBERGER, CORTLAND

Honorable Mention, Monthly Competition

subject (a figure in it with a white bodice) required an exposure of thirty seconds. Trial exposures were made with Wellington bromide paper and twenty per cent less exposure accorded the plate. Enlargement distance 8 x 10.

It should be understood that exposure here depends upon the density or contrast of the positive. If balance be true all will work out harmoniously, and a well-gradated negative will result. If positive proves too thin, expose with f.64 and develop with normal solution restrained with bromide. In such a contingency it is well to experiment first with small plates. Get a box of 4 x 5 Cramer contrast or slow Isochromatic plates. What is left may be used in the camera in regular work. I use the pyro-metol herein recorded for personal purposes, in the following proportion: —

Solution A, 4 ounces; B, 2 ounces; water, 4 ounces. Fix in plain hypo freshly prepared.

Full exposure must be given Cramer's contrast plates, otherwise there may be too much clear glass in the shadows.

We are so accustomed to the negative on glass it is difficult to realize that for some purposes those made on paper are just as satisfactory. The glass negative appeals of course to the lover of detail, and it must be resorted to where that quality is a desideratum. Pictures to be viewed from some little distance can well bear suppression of detail, and the paper negative furnishes a ready and certain means for its attainment. For dimensions under 8 x 10, however, the paper negative is not advisable.

For the purpose I have found Studio Cyko admirable. Artura carbon black is also suitable, but it is a soft working paper and as great opacity is required in the paper negative the Studio (yellow label, No. 6) Cyko is favored. In lieu of the latter we may have recourse to Eastman's Standard A bromide, which will require about the same exposure as a slow plate. Nor need we confine ourselves to the one brand. Any of the thin, structureless bromide papers made by other manufacturers will serve equally well.

There is some complaint in regard to inability to obtain sufficient density in the high lights where paper is used for negative making. Such a negative requires about twice as much opacity in the blackened portions as does a positive print made on the same paper.

My advice is to give a full exposure and develop with a hydro-metol solution well restrained with bromide. Stop development before the shadows (white portions) are veiled over or employ Cramer's contrast developer.

There is a peculiarity about Cyko paper that in this connection should be noted. In order to get any amount of contrast it is only necessary to prolong the exposure and employ a diluted developer well restrained with bromide.

The paper negative of necessity is a slow printer and is not rendered any the less so by the baryta coating which characterizes present-day emulsionized papers. Were it possible to obtain the paper made especially for the government in the map duplicating process, it would be a great advantage. The results would be as sharp and grainless as where glass or film is employed. We can, however, help matters somewhat by making the paper translucent, in so far as that is possible under conditions stated. Examples: —

Spread a sheet of white blotting paper on a board and face down over it the negative. Over the back of the latter sprinkle fine scrapings of paraffin or white wax, and with another sheet of paper over all pass a hot flat iron back and forth until the wax is thoroughly melted and absorbed. That is one way, but a better plan is to melt the wax in a flat dish and float or immerse the negative on or in it. By this latter plan the melted (and it must be hot) wax is made to penetrate the paper fabric in manner much more certain than is the case where a flat iron is used.

Another plan is to use Canada balsam thinned down with turpentine. Another, caster oil and turpentine. None of them are new, all have at one time or another been recommended, and doubtless all are good. Some day I propose to go into the matter thoroughly, meanwhile the floating upon melted wax will answer my purpose sufficiently well.

In this connection it may be remarked that over-development is responsible, in great measure, for slow printing. I refer here to the average negative to be met with in the hands of amateurs. When all detail is out and the deeper shadows *begin* to darken over, I can conceive of no advantage in longer continuing development. Thousands there are who habitually develop beyond requirements, as may be easily discoverable by a glance at their pictures, for indications of over-development of a negative "crop out" in the positive print, to its great detriment be it said.

By prolonged or over-development we but add to density in general, coax out never a bit more detail in the shadows, pile up a deposit of metallic particles where least needed, thus slowing printing capacity and adding not one iota of contrast, should such happen to be the sought-for quality, and many times it is.

In the enlarger the dense negative or positive prints more or less slowly, depending in great measure upon whether developed with a reducer of the benzine group, or our old oxidizing friend pyro.

I have thus touched upon the question of development of the original negative, because the qualities pertaining thereto have an important bearing upon the question of exposure for the positive. And, if the resultant positive have transferred to it all the undesirable qualities of the negative from which it was made, there are still further accentuated the features that in good work should have avoidance.

REFLECTIONS V. R. CUNNINGHAM, CAMBERLEY

Honorable Mention, Monthly Competition

Reverting to the subject of the positive, we may use a lighted candle as an illuminant, if desired, when making the exposure.

At a distance of 24 inches we may try exposures as follows: —

Seed No. 26 plate, one and one half seconds; Seed No. 23 plate, three seconds, and we may test the light with Eastman or Defender bromide paper, according to either, eight seconds.

Comparative speed list is as follows: Stanley, Cramer Crown, and Seed No. 27 plates require one second, Seed No. 26 or Cramer Banner will require one and a half seconds, Cramer Anchor, and Seed No. 23 three seconds, Cramer Contrast six seconds, Seed Process twelve seconds, Eastman and Defender bromide papers eight seconds.

With this knowledge in regard to relative exposures we can use bromide paper in the enlarger to test the illuminant, and regardless of speed of plate employed govern ourselves accordingly.

When I first had intentions to attempt the making of enlarged negatives, notwithstanding I had on hand the necessary plates, I kept putting off the supposedly evil day because of fancied difficulties. Five minutes' experience in positive making was sufficient to disabuse my mind in that regard, and I now consider the making of the positive no more difficult than where Velox prints are involved.

The illuminant being constant, it simply devolves upon the worker to alter the distance to conform with the opacity of the negative. Once one can thus intelligently size up negatives, the process is shorn of difficulties.

The paper negatives should be fixed for fifteen minutes in an acid hypo bath and afterwards washed for an hour. When washing is completed, — to prevent curling, — the following bath should be used: —

Water	16 ounces
Glycerine	2 ounces

Immerse negative in this bath and at the expiration of say ten minutes take out, drain, and hang up to dry.

Once drying is effected, pinholes and other defects may be blocked out with India ink or opaque. Also have we here an excellent opportunity to modify by the use of water color, ink, crayon, or lead pencil, either on the back of the negative or the front, and perhaps in some cases both. As modification proceeds an occasional proof should be made lest results be crude. High lights can also be reduced or altogether eliminated either by a wad of absorbent cotton moistened with alcohol rubbed over the spot, using a piece of soft wood as a pointer, or by a touch of weak Farmer reducer, hypo and red prussiate in solution. A deft touch is, however, required to handle the latter successfully, hence practice would better be on a waste negative.

PIFFLE

THE WALRUS

I AM always on the lookout, as may well be imagined, for anything strikingly novel in the photographic world, and have noticed one or two things lately that are so labeled. The fact that they are about as old as toothache or the hump does not count.

First there is the wonderful news, all freshly dished up, of that deadly mummy-case in the British Museum. I have already written twice about it, and any one who fancies chancing his luck by examining it will find it in the corner reached by turning sharp to the left on entering the last of the Egyptian rooms. By its side is the famous photograph of it. You will remember that the photographer, or his aunt or his cat, or somebody or something, died afterwards. This shows the rash folly of photographing anything. No one can dispute the statement that large numbers of people who have taken photographs have subsequently expired. We cannot be too careful. Any one who exposes a plate on a mummy-case will certainly die after it.

The next novelty is the description of some slides of mountain scenery which were made from negatives taken at night, "the light utilized being that of lightning flashes." This is no doubt an excellent light to utilize, but, unfortunately, its supply is somewhat irregular and uncertain, and although the results may be striking, the operator may be struck. It is not stated how many flashes of a given size go to make one exposure; but it seems pretty certain that the man who made all his exposures by lightning light would have a very meager stock of negatives, and would very likely be a cinder before he had accumulated a lecture set. The gentleman who thus understudied the defiant Ajax stated that photographs might be obtained of mountains fifty miles away "with powerful lenses." I am glad to hear again of our dear old friend the "powerful" lens. Bless his sturdy old heart! Often have I seen him filling vast space in a pawnbroker's window, his powerful glasses covered with scratches and bubbles, and his mighty mounts corroded with rust and green with the verdigris of ages. He is really worth about fourpence, but hardly looks it. And he is labeled, "This powerful lens, only £5." He might not be able to tackle mountains at fifty miles, but he is probably good up to forty-nine.

SENSATION OF THE NIGHT SUISAI ITO, PORTLAND

Honorable Mention, Monthly Competition

Then there is another great novelty — the cleptograph. I am sure no one will recognize it under its new name, although most readers, probably being sufferers at times from kleptomania, will have some inkling of its purpose. It is, in short, an automatic, and all but human, camera fixed in the wall for the purpose of taking photographs of burglars. When the burglar enters the room, an electric wire (what marvelously useful things these electric wires are!) causes the camera to focus itself on the marauder. When this has been fully accomplished, and the burglar has stepped well out of the field of view, another electric wire fires off a flashlight, and a portrait of the villain would certainly be obtained if he had not already moved away. Next day, when the owner of this marvelous apparatus misses his safe, and jewelry, and the electroplated toasting fork and German silver cruet stand, he develops the plate and places the portrait of the burglar which he has not obtained in the hands of the police, who arrest some likely fellow, and with the aid of a little judicious perjury and a photograph of their own, cause him to do time. The idea is a lovely one — for the silly papers. Even if the idiotic arrangement happened by some strange chance to obtain a good photograph of W. Sikes, do you suppose William would care? Not he. When he had bagged the swag he called for, he would calmly proceed to dig that camera out of the wall, smash the plate, and pawn the apparatus for ninepence. It takes more than two electric wires and a penn'orth of magnesium powder to disconcert Bill when he goes a-burgling. I know Bill.

Although these matters to which I have referred are being served up in certain papers as something quite fresh, they are really hoary with age. But I recognize that there may be novel points about the camera which has just appeared in London under the melodious name of the "Cirkut." When I say that this word is intended to represent the English word circuit, it will be pretty obvious from what great country the camera emanates. There is only one country in the world where people could call circuit, cirkut without feeling ill. This instrument goes one better, or worse, than the camera to which the *Westminster Gazette* refers as a "pianoram," which has frequently been employed for taking "pianoramic" views. The "Cirkut" makes a complete cirkut. It goes right bang round once, and there is no reason why it should not be made to continue going round, taking photos, photos all the way.

Still quoting the *Westminster Gazette*, I may say that a gentleman from Boston, U. S. A., has been "at large" in Europe with a "Cirkut," "stalking the elusive landscape." As might be expected, the landscape was in every case entirely unsuccessful in eluding the gentleman with the "Cirkut" from Boston. A landscape has no earthly chance to elude a "Cirkut." Where in thunder is it to go to dodge a camera that boxes the compass in one wild and comprehensive whirl? I do not quite like that expression "at large." It makes one wonder to what building in Boston they would take the "Cirkut" man if they caught him. But even if he should be caught he will have the consolation of knowing that his success while at large was quite phenomenal, for the *W. G.* states that he has photographed "what was invisible to the back of the head." Everything is invisible to the back of the head. Ergo, he has photographed everything.

It has been pointed out that these photographs taken with revolving cameras and then presented as a flat continuous strip look unnatural. They do. But only for the present. Before long they will be the only photographs that look at all natural. It is pretty certain that the human race, in view of the introduction of motor traffic, will develop wide-angle eyes, which not only embrace a considerable view, but can be moved in divergent directions. It will be absolutely necessary to see both up and down the street at the same time. It may even be necessary to hasten evolution by artificial means. The optic nerve with the eye still at the end may be trained gradually, like a creeper, up to the top of the head, and there encouraged to revolve steadily. Then a "Cirkut" will be the only possible camera. Thank goodness I shall be by then a mere epitaph.—*Photography.*

PHOTOGRAPHIC EXPOSURES

ONE of the reasons why photography as a pastime has persisted and grown so popular is because none of its votaries ever reach that stage of perfection where they have nothing more to learn. Not only are new appliances and papers constantly made available, but the practical operation and manipulations in the processes also are full of surprises and require the constant exercise of judgment. Nowhere is judgment so necessary, however, as in the proper exposure of the negative. A properly exposed plate or film with ordinary skill will insure a good negative, but the writer's experience has been that under- or over-exposure will result in an unsatisfactory picture notwithstanding the corrective methods usually employed. An appreciation of the need for some mechanical indicator to take the place of judgment has resulted in a number of "exposure meters" being devised, provided with scales in which one first guesses at the light intensity and then tries to find it on the so-called "meter"; but, since the judgment is called upon in any case, why should it not be called upon directly by the assistance of some logical and definite method of reasoning. That is to say, instead of asking oneself directly what stop or speed of shutter to use, to ask how much light there is in terms of a scale upon which several points are pretty accurately fixed in the mind, and then by a simple mathematical operation determine the stop and time. Proceeding along these lines the writer has devised a scheme and used it successfully, which will be briefly described. It was used in connection with a folding pocket kodak using films and only snap-shot exposures, but would be adapted to all snap-shot work where the photographer wisely stuck to one kind of plate or films. The obtaining of uniform results from a process involving so many variable factors as are involved in photography requires that the number of variables be reduced to a minimum. A plate, film, developer, or other solution, lens, shutter, paper, etc., which has proven itself satisfactory should be used always, as the operator soon learns to obtain good results with certainty. The light available he has no control over, however, except as far as his lens, diaphragm, and shutter permit him to admit more or less of it.

Starting out with the sufficiently accurate assumption that the effect upon the film is directly proportional to the quantity of light striking it, and acknowledging that there is but one correct quantity of light for each film, we at once arrive at the simple formula for each quantity of light coming from the subject: — size of stop x time of exposure = constant degree of exposure. Shutters are generally numbered with U. S. stop numbers and the denominators of fractions of seconds; calling these s and t respectively, for convenience, the above formula becomes: —

$$st = \text{constant}.$$

The illumination of the subject is, however, also variable. Suppose, for example, in a given locality, that it varies along a scale up to one thousand, and that we call any number on this scale a; it is very evident that some value for a will be the number on the scale adopted which corresponds to correct exposure for any given degree of light from the subject, and that when it once is decided upon, it becomes a constant which can be substituted in the formula, giving us for working purposes: —

$$st = a$$

This formula eliminates one constant from our consideration. After some practice we determine a quite easily by judgment alone; then we settle upon stop or time, never both. If the subject is moving rapidly, the time must be rapid, say 1-100 or 1-150 of a second; if much detail is wanted a No. 16 or smaller stop must be used; again, if there is little light or very much light, there is little choice. When the camera is held in the hand, it is not wise to use a speed of less than 1-20 second. The quality of lens will determine how small a stop can be used, and the quantity of contrast and detail will also limit the choice of stop number so that there is generally some good reason for selecting certain stops or speeds. Again, the maximum value of a will vary with the sensitiveness of the film, but must always be a matter of judgment in the nature of things. The advantage of the scale of light values lies in the definiteness given by numerical valuation. Instead of pretty bright we might say $a = 700$; or for quite dull, $a = 300$.

For example, suppose we wish to photograph a beach scene with bathers; we would select a small stop which would require the longest time that correct exposure would permit, say 1-25 second; suppose the light from the beach was worth 900; then $s \times 25 = 900$ or $s = 36$, and we would probably choose a No. 32 stop. The calculation is simple and is performed in a moment. Suppose we desired to photograph a crowded street in midwinter where the light from the subject would be worth but 150 and the moving objects would not permit a less speed than 1-25 second; then $s \times 25 = 150$ or a No. 6 stop would be required; if the lens did not have a stop that small, the view could not be taken without under-exposure, or, the large stop may not give sufficient detail.

In the writer's experience this method has given much satisfaction and solved the problem of stops and speeds as well as materially assisting in estimating the quantity of light. It is to be regretted, however, that the data available relating to accurate tests upon the relation of stops and speed to correct exposure are not sufficient to make up a scale of exposures for various subjects. However, every case is a problem in itself and it is not probable that a method will soon be devised by which the light received *from* a given subject will be accurately determined mechanically. The hour, month, cloud accumulation, clearness of the atmosphere, etc., may be of interest, but we must always remember that the subject includes one object of interest and that exposure and development must be made with that alone in consideration, which makes it very evident that the judgment must be relied upon in exposing correctly for it. Each operator must make a scale for himself to correspond with his subjects, apparatus, negatives, and locality, and this can be easily done by noting whether the values were high or low when developing, and being governed accordingly.

Editorial Comment

AN APOLOGY

WE find it necessary to apologize to many of our subscribers for the delay in entering their subscriptions. Although our October and November editions were both materially increased, we failed to make adequate provision for the number of subscriptions that flooded us during the former month. The October edition was exhausted three days after publication, and several hundred subscribers who desired to begin with this issue were obliged to wait until November. The same thing happened in the case of the November issue. An increase of five hundred copies was made, but shortly after publication this number also went out of print, and many new subscribers are being furnished with the December issue for their first number, instead of November. We have taken measures, we hope, to make our December edition large enough so that all subscriptions entered before the January issue is out can be begun with December.

THE END OF THE YEAR

WITH this number closes another volume of AMERICAN PHOTOGRAPHY, and one which records the greatest progress yet experienced in the history of the magazine. We have added more subscribers to our list than ever before in a single year, and we are pleased to find that these new subscribers are most enthusiastic additions to our list. We are glad to feel that during the past year the magazine has been increasingly helpful to our readers. Hundreds of our subscribers have, unsolicited, sent us letters of most enthusiastic testimony to the aid and assistance received from the magazine. Our departments seem to be helpful, and meet the wishes of our readers, as far as they are expressed. This is, however, not done as much as we could wish. You have no idea how much it helps the editor if you will write him and tell him what you would like to have printed. The nature of the articles which will help you most can be best stated by you, and we invite every reader to write us a letter telling what departments he likes best, with suggestions for the improvement of the magazine, and especially what subjects he would like to see treated in articles next year. Please take this admonition as meaning *you*, and sit down now and write the letter.

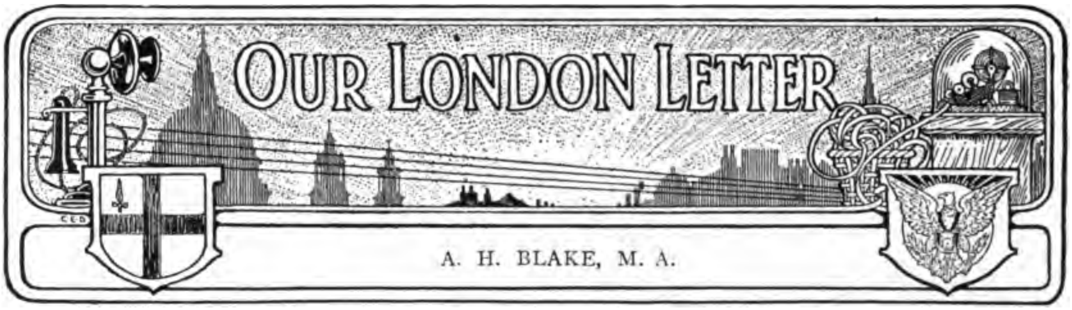
OUR MONTHLY COMPETITION

WE are pleased to announce that the winner of the first prize in last month's competition was A. D. Brittingham.

This month we have reproduced seven pictures from the competition, and it is remarkable that three of these are by Japanese, all of them displaying ease in composition, and skill in execution. Prizes and honorable mentions are awarded as follows: First prize, "The Truant," by C. Burnham; Second prize, "Making the Water Hot," by Hitoshi Yahagi; Third prize, "The Happy Home," by Kiyo Ogura. Honorable mention, "Trying Her Skill," by Anna Beckstrom; "Fungus," by Beatrice B. Bell; "The Farmer's Boy," by Mrs. Brooking; "Tranquillity," by Otis L. Clodfelter; "Over the River," by E. B. Collins; "Reflections," by V. R. Cunningham; "The Last Stock," by Francis Edgerton; "Sensation of the Night," by Suisai Ito; "Clearing Off," by S. B. Phillips; "First Pair of Brownies," by Arthur A. Reed; "October Mists," by Roy J. Sawyer; "Hazy Morning among the Hills," by Dr. F. F. Sornberger; "No Name," by H. E. Stout; "Butterfly," by H. Y. Sümmons; "Fast Falls the Eventide," by James Thomson; "The River Road," by L. M. Vance; "Edge of the Marsh," by Harry D. Williar.

INDEX

A title-page and index to volume IV of the AMERICAN PHOTOGRAPHY are on the press and will be sent free to any reader who will send us a request to that effect.



OUR LONDON LETTER

A. H. BLAKE, M. A.

Now that the Salon has closed we are able to look back upon it with the most pleasurable feelings. With just one or two exceptions it has been received with a chorus of approbation both from the press and the public. And, what is more, from the photographic public as well. No one can deny that it was a very high-class exhibition, while others assert that it was the best we have ever had in London. Perhaps the pleasantest event in connection with it was the Smoking Concert held only the other day, at which, as at the old Salon Smoker, all the best men in photography were gathered together: everybody who was anybody was there, and a very good time was spent. The entertaining talent was of the best, and there was plenty of time for conversation and for the greeting of old friends. It can only be hoped that a convenient gallery, an enthusiastic body of members, and a fine collection of work, will all combine next year, as this, to give us as good, and if possible a better exhibition. At any rate we shall have more American work, as the collection intended for our selecting committee cannot go wrong a second time.

We have just listened to the president of the Royal Photographic Society in his annual address to the Society. As my readers are aware, the president this year is Lord Redesdale, who departed somewhat from usual custom in the choice of his subject. Probably few photographers care much, apart from getting a texture which shall suit their subjects, where the paper comes from upon which their emulsion is spread; but Lord Redesdale made paper very interesting as his subject for the presidential address. We were informed that to China we owe paper as we owe a great many other things: Samarkand was the first great paper center receiving supplies from China, and Bagdad also was well to the fore. It appears that two eminent men of science, the one a distinguished Arabic scholar and the other a microscopic authority, both studied the question of the origin of paper, and came to identical conclusions from such widely different starting-points. Rags were not used by the Chinese for making paper, and they used little, if any, size.

The new Camera Club held its first lecture evening a few days ago, and a very pleasant function it was. As a stimulus to debate, we had about one hundred autochrome slides lent by the Vienna Camera Club. I suppose it is true to say that it is the best collection of such slides that has been exhibited in England, but we have seen finer individual work, such as some of those in the 1908 Salon and some by J. C. Warburg, who is one of the most progressive and distinguished of our English color workers. In a sense it is distinctly disappointing to see a collection of autochrome slides on the screen. There seems a lack of composition, of a knowledge of color harmonies, and it seems as if one were back before the days of the individual control of the pictorial worker. The autochrome worker can give so little personal control, except in figure and still-life subjects, that we seem back in the first years of monochrome photography. Several individual slides were of high quality and great interest. It was a happy augury for the future usefulness of the Club that painters as well as photographers contributed their quota to the discussion. As the members of the Club shake down together we get more and more of the old spirit of comraderie that used to obtain in Charing Cross Road in old days, and it is more evident than ever that the Camera Club is going to be a great center of work, interest, and goodfellowship for the photographic world. Members are joining not only from London and the suburbs, but also from the colonies and abroad, including some Americans.

Talking of Americans, I see that A. L. Coburn is giving us two new books over here; he sent me the prospectus of one on "New York" and also of a volume on "Mark Twain," illustrated by his photogravures. He does the printing from start to finish himself, putting his personal care and artistic skill into the matter, and the result of such kind of work is never in doubt.

We had an excellent meeting of the Society of Night Photographers this month in the fine old room in which Henry, Prince of Wales, the son of James I, all untimely died in early youth, when Mr. H. Wild of Tunbridge Wells showed examples of very rapid work in the streets of London. Most of his results are taken in less than a minute, and a great many in a fraction of time — say, ten or fifteen seconds. He uses a 2B Dallmeyer portrait lens, which, as my readers are aware, works at f. 3, and very fast orthochromatic plates, and he does not scruple to use his developer warm, if not hot, and considerably diluted. If the plate will stand it, he has allowed the developer to be as high as eighty degrees. In this way figures are secured and something of the life of the crowded street retained. Night pictures that show empty streets always seem unsatisfactory, but by this method of working cabs and people can be freely secured. As facilities increase, we shall expect to go a great deal farther than this, and the poor pedestrian will be safe from the ubiquitous camera man neither day nor night. Up till now he has had a close time at night. Our presidential and royal guests are going to have a still worse time than before.

SOCIETY NEWS.

Toronto Camera Club. — The annual meeting of the club was held on Monday evening, November 7. From the twenty-second annual statement, dated October 19, submitted by Alfred Robinson, the retiring president, and the treasurer's statement by Mr. Hugh Neilsen, the business of the club for the past club year has been unusually satisfactory and reflects most favorably upon the abilities of the committee in knowing how to do things right. In the statement the president remarks "that the club is financially stronger than ever before, yet there has been added to the equipment a new projection lantern, a large print trimmer, and several other useful accessories.

"By judicious management the club has a credit balance at the end of the year of $448.66, or an increase of $99.40 over the balance of the previous year, and an increase of assets from $1054.62 to $1160.26 with no liabilities."

Within the past year the membership has increased in a most favorable way, totaling now to two hundred and two, which is the largest since the club began. He considers for the annual fee of $5 the members are receiving many privileges. He urges the need of constantly recruiting new members to maintain the numerical strength of the membership. During the year the annual salon in the club rooms and the club's loan exhibit to the late Industrial Exhibition in Toronto were most successful, the work presented being most favorably commented upon by competent and critical judges. In closing he wished that the club might continue to prosper and that in the future its members may find a lasting pleasure and enjoyment in the pursuit of photography.

A resolution was carried adding an entrance fee of $5 to the annual fee of $5 for ordinary members, when new members are admitted.

The treasurer's report for the year ending September 30, 1910, showed that starting the year with a balance of $349.26 there had been received for dues, $909; locker rentals, $92; interest, $19.04; rental of hall, $10; goods sold, $24.23. Grant from Canadian National Exhibition Association, $100. From members for framing prints, $4.36. Refund from American Lantern Slide Interchange, $5.15. Making the total receipts, $1163.78. The expenses were $1064.38, and included such items as $48.71 for Interchange fee, express, and duty; rent, $450; secretary and treasurer, $75; light, $79.96; exhibitions and salon, $196.36; studio, workroom, and lecture room, $52.93; printing, $24.75; postage, $20.05; telephone, $50. Leaving a balance on hand of $448.66. The furniture is valued at $711.60, which, with the cash balance, makes the club carry a surplus of $1160.26. The reports were audited by A. G. Fraser and E. J. Bowers.

The club is to be congratulated in having its affairs so ably managed by efficient and interested officers.

* * *

The American Lantern Slide Interchange. — The attention of clubs and photographic societies who are not members or of new organizations desirous of participating is called to the fact that information will be sent to them on application about the way they may become members and share the advantage of using for exhibition purposes about ten or twelve selected sets of slides in a year. The annual circuit begins January, 1911. The sets of slides circulated from Maine to California and in Canada, should be sent to New York before January 4, 1911. Address F. C. Beach, Gen'l. Manager, 361 Broadway, New York.

* * *

THE CAMERA CLUB PRINT INTERCHANGE, 1910–1911. — Upon the suggestion of Mr. S. S. Skolfield, the Buffalo Camera Club has been elected to the position of Directors of the Interchange for the coming year.

The club thus honored wishes to extend its thanks to the other clubs of the organization for this distinction, and will do its utmost to prove itself worthy of the trust imposed, relying on the good will and cooperation of the others in our endeavor to make, this year, one more stride in the advancement of the work to which the Interchange stands committed.

To this end it has been suggested that we adopt a method of judging the prints at some central point by a jury composed of one representative from each club, which body, together with the Print Director and two other members of the club responsible for the management of the Interchange for the year, shall meet at such time as may be previously arranged for and pass on the prints submitted.

In case any club cannot send a representative, it will have the right to appoint a proxy to look after its interests, who shall be an authorized representative of one of the other clubs. This person to have votes in the deliberations of the jury equal to the number of clubs he represents.

If the clubs of the Interchange should fail to send representatives to act on the jury, or proper proxies, the Print Director reserves the right to select a competent jury, consisting of not less than three persons, to judge the prints: —

Prints to be judged on points as follows: —

For pictorial excellence	60
For technical excellence	30
For mounting	10
Total	100

A club may submit any number of prints, not to exceed thirty-five (35), not more than twenty-five (25) of which will be finally accepted by the jury.

All prints to be mounted. None to be framed. Mounts must not exceed 15 x 19 inches. This is absolutely necessary on account of convenience in shipping.

All exhibits to be sent express prepaid.

Clubs having but few prints accepted will have their exhibits combined with one or more others.

All prints must reach the Director of the Interchange not later than November 15, 1910.

The jury will be called to meet in Buffalo, N. Y., on Saturday, November 19, or thereabouts, and the date of first shipment will be by November 30 following, at which time the director will start the wheel moving by forwarding to each club one set of exhibits, the same to be forwarded by the club first receiving it, on the second date to be given on the list, to the club next following in the order named. The club last on the list to send to the first one.

This list, giving the names of all clubs exhibiting and the date of shipment for each month, will be sent out as soon as the itinerary can be arranged.

Each club is requested to forward promptly to the address given below the name and address of its president, or such other member who has charge of the prints from the Interchange.

Criticism forms will be sent out with each set of prints, the same to be filled out by the club receiving them, and sent direct to the club owning the exhibit.

We would impress on all those in charge of the handling of the exhibits the importance of keeping things moving on schedule time, thereby making the successful operation of this chain of exhibits an easier and a pleasanter task to all concerned.

The sum of $2, which is the regular annual dues of each club, and which will be used to defray the expenses of printed matter, postage, etc., should be forwarded at once to the director as per address below.

The object of submitting the prints to a jury is to secure a higher standard of exhibits, there having been some complaint in the past that the work shown was very uneven, and that the poor prints seriously injured the value of the exhibits.

The aim of the Interchange is to improve the work of its members, and to do so it is necessary that the best possible work of each and every club be shown.

In this way the exhibits will be better in every respect and the general standard improved.

The jury will send out with each set its own markings of the accepted prints, and will send to each club the markings of its own prints (if any) that were not accepted.

We will have one or two new clubs in the circuit this year, the names of which will be announced later.

We shall be pleased to receive any advice or suggestions from any of the clubs, and hope all will put their shoulder to the wheel and make this year's advance a record breaker.

CHARLES R. PHIPPS, *Print Director*,
142 Dorchester Road,
Buffalo, N. Y.

* * *

WE take pleasure in publishing the accompanying letter from the well-known Milwaukee photographer, Mr. S. L. Stein. We believe fully in the sentiments therein expressed, and feel that it would be advantageous to many of our readers to join the Photographers' Copyright League of America, which is established to secure and protect photographic copyrights, to suppress piracies, and generally to promote the interests of the profession. Only by cooperation can these desirable ends be attained, and the league needs the support of every photographer who makes pictures which he desires to have protected. Full information of the league's affairs can be had from the treasurer, Joseph Byron, Marbridge Building, New York, N. Y. Mr. Stein's letter follows: —

MILWAUKEE, September 9, 1910.

MR. JOSEPH BYRON, Marbridge Building, N. Y.

Dear Mr. Byron, — Inclose you N. Y. drafts of $8.90; $3.90 of which is for bill for copyright form books, which please receipt and return to me. The $5.00 is for a year's dues in the league.

Beyond all question, from my point of view, the league can only attain its fullest value on the basis of a large and representative national membership. Many members mean weight and influence; moreover, a big member roll means a solid financial backing. We need both. With them the league may be a power; without them it is a little more than a nullity. Now comes the question — how are we to attain that desirable result?

The league should have an assured income of at least $5000 a year; two of the important measures it would make possible, being (*a*) the employment of a secretary, who should devote his entire time and energy to the voluminous league correspondence and the cognate duties that would inevitably accrue. (*b*) Retaining the service of a competent copyright counsel to whom all legal questions could be referred without charge to individual members. Now, if the minimum annual dues are fixed at a dollar a member, a roll of twenty-five hundred gives us a fair start toward the end we are aiming at. It is understood, of course, that any increased amount of dues is purely optional with any member. But, on a one dollar basis, the revenue of such a member roll falls far short of what is needed and makes it necessary to make up the deficiency by a call for extra contributions from those who most earnestly appreciate the task by which the league is confronted.

This plan, being dependent upon certain conditions, is not a satisfactory one, and it puts the league in the position of "passing the hat round" in a fashion that might not be hurtful to the feelings of a professional beggar, but is certainly not befitting the dignity of an important and self-respecting organization.

What is wanted — and needed — is a stable and assured revenue. Might it not be practicable to ensure it by a plan of graduated dues? It is only fair, anyway, that they who derive the greatest benefit from the work of the league should be the most liberal contributors to its support.

Most of them are already, and I feel little doubt that many of them would engage to contribute dues ranging from $5 to $10 a year until such time as the increased member roll of the league would bring in sufficient single annual dollars to ensure a good working capital.

As a means of obtaining the desired wider interest and support, I would suggest that each State organization take up the matter and join the league in a body. The trade magazines, also, should be interested and urged to boost the league and keep its work and aim in prominent evidence. They should be "fed" with frequent items and articles on league matters; list of members; copyright legislation, etc.

My letter has spun out longer than I thought for but as it clearly outlines my views, I guess no harm is done.

With best wishes for the league's successful future believe me,

Cordially yours,
(Signed) S. L. STEIN.

* * *

THE POSTAL PHOTOGRAPHIC CLUB, MONTHLY BULLETIN. — Washington, D. C., October 1, 1910. The Album for October, 1910, was issued October 1, 1910. It contains twenty-seven prints. The Albums for June and July, 1910, are still *en route*. It was hoped and expected that these Albums would have reached home before the end of September, but delays occurred to prevent the accomplishment of that purpose. Considerably more than one third of our members failed to contribute prints for the October, 1910 Album. This lapse upon the part of so many members is to be greatly deplored. Surely there has been ample time afforded every member to provide an ample supply of prints. It is hoped for the well-being of the club that the Album for November and the Albums for the succeeding months will show a marked increase in quantity of material.

G. A. BRANDT, *Secretary.*

* * *

THE POSTAL PHOTOGRAPHIC CLUB MONTHLY BULLETIN. — The Album for November, 1910, was issued November 1, 1910. It contains thirty prints. The Album for October, 1910, is now at New Bedford, Mass. Accompanying that Album is a narrative prepared by our fellow-member, Bro. Harry D. Williar. This narrative is very handsomely gotten up in album form and contains a very interesting account with copious illustrations of the doings of some of the members of the club during the very enjoyable week spent by them in July last at Athens, Pa., and vicinity. The local members, Brothers Park, Newman, Fitler, and Stagg, deserve great praise for the hospitable manner in which they entertained their visiting brethren on that memorable occasion. It was an event to fill all who participated with most pleasurable recollections. The only thing to be regretted was that there was not a larger attendance.

The pleasurable announcement is made that the "Experience Note Book" is again in motion. This book was started on its travels early in April, 1909, since which time it has passed through the hands of very few members. Now that it has got well started again it is hoped that it will make rapid progress and not encounter any more long delays.

Announcement is also made of the election to membership of Rev. H. H. Williams, of University, Va.

Under Article V of the Club Constitution the annual lection of officers of the club for the calendar year 1911 will be held during the month of November, 1910. Members will please make their nominations on the postal cards provided for that purpose.

G. A. BRANDT, *Secretary.*

* * *

The Women's Federation of the P. A. of A. is now beginning a new year of active effort. Last year's work yielded very gratifying results. We want this year to be even more successful and ask the earnest support of every woman photographer, either as an active or associate member.

The following article will be beneficial to all who wish to become members of the Federation: —

Art. 3, ***Membership.*** — The membership shall consist of Active and Associate members. Active members shall be professional women photographers, who are active members of the P. A. of A. Associate members shall consist of all other women photographers. They shall be entitled to all the privileges of the Federation except that they shall not be entitled to vote or to become members of the executive board or to attend the annual meeting when held with the P. A. of A.

The work this year through the "Circle" will certainly be very interesting. The membership list is already very large, making it necessary that the exchange of prints be done at one specified time, in order to facilitate the work of Miss Belle Johnson of Monroe City, Mo., under whose supervision this work is being done.

Section 7 of the By-laws will be of interest to all members of the "Circle."

Section 7. — Each member of the "Circle" shall promptly forward all prints received to the next member of the "Circle," and shall when mailing them send a postal to the first vice-president notifying her that the prints have been mailed. Failure to promptly forward prints and send a postal will result in a fine of fifty cents for delinquency, as the success of the "Circle" depends upon the prompt forwarding of all pictures received.

The membership fee of the Federation is only fifty cents (50), which also covers the expense of becoming a member of the "Circle" if you choose.

To all who are not already members we extend a hearty invitation to join us in our effort to make this a banner year.

Very sincerely,

Maybelle D. Goodlander,

Sec. and Treas., Women's Federation.

409 East Main Street, Muncie, Ind.

The special competitions committee, of the Newark, N. J., Camera Club, consisting of F. Oscar Race, Alexander Berne, John K. McCrea, W. H. Siddall, H. C. Brewster, solicit prints for a special competition which closes March 31, 1911, as follows:—

Class A. J. M. Foote prize. Mr. J. M. Foote offers a $20 gold piece for the best picture of a girl. The picture must be made from a 5 x 7 negative. All entries must be contact prints. Previous prize-winners in this class are barred.

Contact Prints or Enlargements. — Class B, Thos. Elsum prize, silver gilt medal, genre; Class C, W. S. Norris prize, silver gilt medal, night scenes; Class D, L. Wright Jr. prize, silver gilt medal, landscape; Class E, F. O. Race prize, silver gilt medal, child studies; Class F, W. H. Siddall prize, silver gilt medal, fruit studies.

Rules governing Special Competitions. — Competitors may enter any number of pictures.

All pictures must be mounted and framed under glass, and wired for hanging. No picture shall be entered that has taken a prize in any competition.

All prints must be entirely the work of the competitor entering them, from negative to finished print. Retouching of negative is allowed, but must be the work of the competitor. All negatives must be made by competitor while a member of the Newark Camera Club. Duplicate prints on glossy paper are to accompany entries where it is practicable. No studio work is to be done in a professional studio.

Competitors must place on the back of each picture in competition their ***nom de plume***, the class and title. Their own name must be placed in a sealed envelope, with their ***nom de plume*** on the outside. Any competitor may receive any number of awards. In addition to prize pictures, the judges may award honorable mention to any number of prints.

All prints entered shall remain in the club rooms until receiving the club's sanction for their removal. These competitions shall close on March 31 1911.

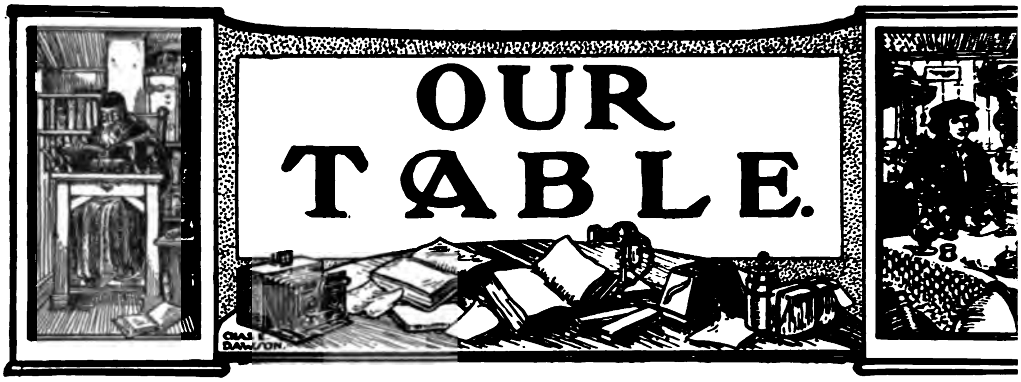
* * *

The first semi-annual meeting of the Detroit Camera Club was held at their club rooms, 6 Adams Avenue W., Tuesday, October 4, 1910. Reports were read, and officers were elected as follows: President, W. B. Wilcox; vice-president, J. E. Scott; secretary, C. J. Shower; treasurer, Harold Collins.

The advisability of making the dues 50 cents per month was readily approved, and membership limit was fixed at fifty.

The club, although in existence only six months, has been steadfastly and enthusiastically working for better and more artistic work along photographic lines; the work entered in the competitions each month manifesting a higher standard of artistic photography each consecutive competition.

The meeting adjourned with refreshed enthusiasm and a very active and successful winter is anticipated



OUR TABLE.

Material for examination and books for review may be sent to Frank R. Fraprie, 221 Columbus Ave., Boston, Mass. Any book reviewed will be supplied by our Boston office at the price mentioned.

THE ART OF THE MUNICH GALLERIES. Being a history of the progress of the art of painting illuminated and demonstrated by critical descriptions of the great paintings in the Old Pinakothek, the New Pinakothek, and the Schack Gallery in Munich. By Florence Jean Ansell and Frank Roy Fraprie, S. M., F. R. P. S. Boston, L. C. Page & Co., 1910. Price, $2.

Although this book on the galleries of Munich is a successor of nine other volumes in this series, the Old Pinakothek of Munich is by no means tenth in importance among the picture galleries of the world. It would assume a far higher rank in any critical comparison, and the delayed treatment of this gallery is due to causes quite apart from its relative importance. The history of the Munich galleries is an eventful one. Fostered by a long line of art-loving princes, and fortunate in its acquisitions, if offers in some particulars an opportunity for study not duplicated elsewhere in the world. Nowhere, for instance, can Rubens and Van Dyck be studied to better advantage, nor is there any other place where the development of South German art can be so well observed. The authors of this book have given an adequate account of the development of the collection, and a careful description and estimation of the contents of the galleries. Both as a handbook for the visitor to Munich and a guide for study to the art lover elsewhere, the book will be invaluable. The illustrations are so chosen as to give an excellent idea of the scope of the collection, and are magnificently reproduced.

* * *

LEXIKON FÜR PHOTOGRAPHIE UND REPRODUKTIONSTECHNIK. Von Professor G. H. Emmerich, Direktor der Lehr- und Versuchsanstalt für Photographie, Chemigraphie, Lichtdruck und Gravüre zu München. A. Hartleben's Verlag in Wien und Leipzig, 1910. Two volumes, paper. Price, $4.

We reviewed the first half of this great work in our July issue, and we have now received the concluding volume, which finishes the book. An idea of th
growth of photography may be obtained from
that the original manuscript makes 873 pages
and that while this matter was being printed,
new developments appeared to require the prin
an addenda of nearly seventy-five pages, — all o
represent discoveries of the last two or three
The concluding volume is as interesting as th
number, and contains a large number of very inte
subjects. As an indication of the fact that the
wholly up to date, we may mention that no fewe
fourteen pages are given to the oil pigment pro
nine to modern color photography, three to the
colore plate, etc. As this book stands to-day, i
indispensable work of reference for every photo
library which makes any pretensions to complete

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LANDSCAPE AND FIGURE COMPOSITION. By Sa
Hartmann. Illustrated by Photo-engraving
celebrated paintings and original photograph
York. The Baker & Taylor Co., 1910. Pric
net.

This book is a reprint of articles which o
appeared in the *Photographic Times*. It is
useful and readable contribution to the liter
the subject. Mr. Hartmann is an agreeable an
writer, and has selected most excellent illus
both photographs and paintings, to illustrate
The book is sumptuously printed, although th
of the reproductions leaves something to be d

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HANDBUCH DER STEREOSKOPIE: THEORIE, PR
ANWENDUNGEN DER STEREOSKOP-PHOTO
Von Otto Schilling. Mit 54 Abbildunge
Stereograms. Leipzig, Ed. Liesegangs Ve
Eger, 1910. Price, paper, 85 cents.

It seems strange that stereoscopic work o
little recognition in the United States. Th
beauty of a good stereoscopic view is a lasti
of enjoyment to the possessor, and those wh
the making of such prints rarely discontinue
book of over one hundred pages gives compl

tions for the making of stereoscopic prints, and the use of the stereoscope. It includes an outline of the optical theory, and all necessary details for the successful taking of such pictures.

* * *

Skioptikon: Einführung in die Projektionskunst. Fünfte umgearbeitete Auflage. Von G. Lettner. Mit 22 Abbildungen. Leipzig, Ed. Liesegangs Verlag, M. Eger, 1910. Price, paper, 60 cents.

This is the fifth edition, carefully revised and increased in size, of this handbook, which gives full and explicit directions covering every detail of the projection of lantern slides, with all kinds of lanterns and lights.

* * *

Brazil and Her People of To-day. An account of the customs, characteristics, amusements, history, and advancement of the Brazilians, and the development and resources of their country. By Nevin O. Winter. Illustrated from original and selected photographs by the author. Boston, L. C. Page & Co., 1910. Price, $3.

This book is not really a story of travel as much as it is a description of natural conditions and resources in the great South American Republic. The author has seen Brazil with his own eyes, and skilfully mingled his impressions with facts gleaned from various other sources to give a picture of the prosperity which the future has in store for this undeveloped country. He is enthusiastic about the future of Brazil, and doubtless his entertaining volume will interest many Americans in the development of our sister state. The publication of sympathetic books iike this is a great step in the welding of the bonds of friendship between North and South America. The book is excellently illustrated with fine photographs.

* * *

Chats on Photography. An Easy Guide for Beginners. By W. Wallington. Philadelphia, J. B. Lippincott Company, 1910. Price, $1.25 net.

This is a simple book for the beginner, giving full and complete elementary instruction in the processes which fall within the average amateur's experience and wants. Little attention is given to theory, and much to practice. Formulas are introduced when necessary, and the writer evidently had in mind his own troubles, so that he has been able to give directions which will cause others to avoid trouble. The book is well illustrated, and can be cordially commended for those who are not fully conversant with the principles of elementary photography.

* * *

The Whistler Book. A monograph of the life and position in art of James McNeill Whistler, together with a careful study of his more important works. By Sadakichi Hartmann. With fifty-seven reproductions of Mr. Whistler's most important works. Boston, L. C. Page & Co., 1910. Price, $2.50 net.

Many books have been written on the complex personality and incomparable achievements of James McNeill Whistler. Much more will be written before the world finally places him in his true relation to art. Every mind which attacks the subject sheds some new light on the question, and Mr. Hartmann also has seen the painter at a different angle from those who have written before. We photographers know that Hartmann has a facile pen and a sound critical judgment, and his study of Whistler's paintings shows thought and care. The book is a mixture of biography and criticism, extremely readable, and full of pregnant thoughts for every photographer. The illustrations are very numerous and attractively presented. They are full of suggestions for the portrait photographer, and also for the landscape worker, as is well known to those who are conversant with photography in the last few years. In other words, the Whistler arrangements have been often copied by photographers. We commend the book to our photographic friends, not for imitation, but for study.

* * *

Panama and the Canal To-day. By Forbes Lindsay. With fifty-three illustrations from recent photographs, and five maps. Boston, L. C. Page & Co., 1910. Price, $3.

This is a book of timely interest, written by an authority and illustrated with numerous photographs. These, however, apparently show that not every photographer can surmount the difficulties of exposure under tropical sunlight, as some of them are hardly satisfactory specimens from the point of view of the photographic critic. This, however, is only occasionally the case, and on the whole the illustrations give a vivid picture of present-day conditions in the Canal Zone. The book gives a clear picture of the canal, present and future, and the country through which it runs.

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Bohemia and the Czechs. The history, people, institutions, and the geography of the kingdom, together with accounts of Moravia and Silesia. By Will S. Monroe. Illustrated. Boston, L. C. Page & Co., 1910. Price, $3.

With all the flood of travel books of recent years, one wonders why nothing has previously been written on Bohemia. It is a most interesting country, and one which should be of great interest, especially to Americans, because of the large Bohemian immigration to this country, which, beginning early in our history, has been very large in recent years. Mr. Monroe feels great sympathy for the country and its people and is thoroughly acquainted with them; consequently he has written a most entertaining and well-balanced book on the subject. Every phase of Bohemian life, past and present, is considered in the book, which is extremely entertaining and readable.

WITH THE CAMERA. — Notes from the Illinois College of Photography and the Bissell College of Photo-engraving, Effingham, Ill. Prof. C. C. McCorkill has just returned to resume his duties in the printing department, after a month's vacation in Canada. President Bissell has just contracted for advertising space in a large list of monthly magazines, covering an advertising appropriation of $10,000 for the coming year. We recently received a letter from Mr. Leon G. Rose, student of 1906, stating that he now has a government position in the photographic department of the U. S. Geological Survey at Washington. Extensive alterations and remodeling are in progress in the Developing Paper Department in Rembrandt Hall. The Bissell Archers have the gratification of seeing their likenesses in the Spalding Archery Guide for 1910 as one of the representative teams of the country.

The college received a very pleasant visit last month from Mr. George W. Harris, president of the Photographers' Association of America, who spent a day with us on his way to the Nebraska State Convention at Lincoln. While here he gave the students a fine talk on studio management. The college just issued its seventeenth annual catalogue this month, and special attention has been given to making this issue unusually pictorial and artistic. The fall enrollment has opened with a rush, the October class numbering among its students the following members from abroad: J. Ispiridon Saad, Kefire, Turkey, Mr. Woo Kiu Yu, Korea; Mr. K. Shedlowski, Russia; Garo Kawano, Tokyo, Japan; Angel C. Rodriguez, Caracas, Venezuela. Mr. Friend Cochran of Charleston, W. Va., student of 1906, has been assisting in the organization of a State Photographers' Association for West Virginia, and Messrs. Proctor, Giffen, and himself were elected president, vice-president, and secretary, respectively. Mrs. H. T. Cutter, student of 1905, has returned to the college for a course in advanced work in photography, and her husband has also enrolled for a general course.

* * *

THE C. P. Goerz American Optical Company announce that on and after November 15, 1910, their factory and office will be located at 317–323 East 34th Street, New York, N. Y., where they will be glad to receive all their friends. This is a much more convenient location than the previous one, which was far up town.

* * *

DURING the winter the question of determining correct exposure is even more difficult than in the summer. The days are much shorter, and the light poorer, under ordinary circumstances, but if snow and ice are on the ground, the matter may be complicated by these unusual factors. With such uncertainty the use of a reliable exposure meter is advisable. One of the best exposure meters is the Imperial, and the principal reason of its superiority is that it actually measures the actinic power of the light at the time of making exposure. It is simple in handling and infallible in operation, as well as extremely cheap. Full information will be given by the American agents, G. Gennert, 24–26 East 13th Street, New York City, or 16–20 State Street, Chicago, Ill.

* * *

THE International Typographical Union of North America offers to printers a correspondence course in instruction in printing, which is now being taken by some seventeen hundred compositors. This course is not provided for the purpose of making money, as the expense attached practically equals the returns, but the object is to improve the general standard of work in the printing trades in the United States. The I. T. U. Commission, 120–123 Sherman Street, Chicago, Ill., has issued a most attractive booklet in regard to this course, which is set up and printed in most excellent style. The Commission is anxious to get in touch with all practical printers, and would be glad to send copies of this booklet to them on application.

* * *

OVER the initials, K. U. D., in our classified department will be found the advertisement of a studio in Florida which offers a very attractive opportunity for some photographer with a reasonable amount of capital. The present owner of this studio has discovered a most valuable forage plant and finds it necessary to abandon photography to give his entire time to this more profitable business. We would recommend an investigation of this opportunity to any photographer who desires to move to a warmer climate, or who is seeking for an opening.

* * *

THE anastigmat "Eurynar," of German manufacture, is a high-speed anastigmat of remarkable depth of focus, covering power, and definition, suitable for every branch of photography. "Eurynar" is composed of four thin glasses without cement, and is ground by the latest formula, making absorption of light by reflection impossible. Catalogue with testimonials from professional photographers throughout the country will be sent on request, by James Frank & Son, Augusta, Ga., the sole American agents.

* * *

THE Berlin Aniline Works have issued a new booklet of instruction for photographers, "The Agfa Book of Photography by Flashlight," an excellent compendium of methods in this branch of photography which is so much practiced during the winter season. The book is published to retail at 25 cents, but for a limited time a copy will be sent to any of our readers who will send 10 cents together with a label from a package of Agfa Flash Powder. Address Berlin Aniline Works, 213 Water Street, New York, N. Y.

The Florida Photographic Concern, of Fort Pierce, Fla., have a very attractive series of pictures of Florida subjects for sale, and would be glad to send a pamphlet in regard to their business to anybody interested.

* * *

On the evening of October 28, an exhibition of Kinemacolor was held in the lecture hall of the New York Electrical Society, at which the editors of this magazine had the fortune to be present. Kinemacolor (with the accent on the first syllable) is a process for the projection of motion pictures in natural colors upon the screen, under the patents of Urban and Smith. The process uses a single film in which the separate images are all black and white. If the film is projected upon the screen in the ordinary manner, a black and white picture, apparently differing in no respect from the ordinary motion picture image, is thrown upon the screen. The sensation of color is produced by the interposition of properly colored screens during projection. *A priori* one is inclined to suppose that a division of light into three components is necessary for any successful reproduction of color. Motion picture experiments on this system have uniformly proved unsuccessful, and to Messrs. Urban and Smith is due the merit of showing that a fairly satisfactory separation of color for projection purposes can be made by the use of only two screens. In order to do this, however, it was necessary to prepare a new orthochromatic taking-film, especially sensitized for the purpose. Using this film, and two taking screens of red and green, the exposures are made alternately through each screen, at twice the usual speed. The positive film, made by contact in the usual manner, is projected through two screens of practically similar colors, by means of a revolving shutter, properly fitted with colored gelatine films. The writer went to the exhibition convinced that anything like an adequate reproduction of color under such circumstances was impossible. The result, however, was surprising. It would be untrue to say that the reproduction of color is perfect, but in the case of many of the subjects exhibited upon the screen it was startlingly successful. Still life subjects proved to be most suitable for reproduction, and many of the flower pictures shown were strikingly beautiful and natural reproductions of the actual object. The reproduction of yellow and blue was least satisfactory, but the reds, which have often been proclaimed impossible, were rendered with startling vividness. On outdoor subjects the results shown were not so satisfactory. The series of photographs of flowers opening was most wonderful and evoked the heartiest applause of the audience. The exposures were made on these flowers at intervals of seven seconds from a period of forty-eight to seventy-two hours, the exposures at night being made by acetylene light. Projected rapidly upon the screen, the flower buds opened gradually to full bloom, and then faded in the space of a few minutes. In some cases the movements of the plant, leaves, flowers, and reproductive parts, were most startling, and seemed more like the motion which we ascribe to animals than the immobility popularly supposed to belong to plants. All in all the audience was most enthusiastic over the evening's entertainment, and there is no doubt that when this process is introduced to the motion-picture theaters, which it is hoped will be the case early in the new year, its success will be instantaneous.

* * *

We would call the attention of our readers to the advertisement of the new firm of Stark & Bell who have gone into business in New York with the intention of making prints, enlargements, etc., of the highest grade. Mr. Ferdinand Stark was, for six years, manager of The Carbon Studio, New York. Both gentlemen are members of the New York Camera Club, and are well and favorably known to its members for the high quality of the work which they are able to turn out. Our readers may recall a recent reproduction of one of Mr. Bell's gum prints, exhibited at the New York Camera Club exhibition last year. The Editors are personally conversant with the high quality of the carbon and gum work done by both members of this firm, and we bespeak for them the patronage of our readers, who, we are sure, will find it entirely satisfactory.

* * *

So great has been the demand for the new double anastigmat "Eurynar," manufactured by the large optical works of Rodenstock, at München, Germany, that it has been impossible for the European and American agents to secure these objectives from the works in sufficient numbers, especially in the more popular sizes and series. The "Eurynar" has undoubtedly exceeded all expectations as a successful introductory product of the Rodenstock works in America. The new catalog will be off the press November 1, and contains handsome and interesting portrait and high-speed illustrations, reproductions from original photographs taken with the "Eurynar" by American photographers. The new catalog contains also numerous testimonials from prominent professional and amateur photographers throughout the country. It may be well to add that the American agents, Jas. Frank & Son of Augusta, Ga., are entitled to much credit for introducing in this country photographic objectives of high quality at foreign prices.

* * *

At the International Exhibition of Industry and Labor to be held in Turin from April to October, 1911, there will be three classes devoted to photography. Full information as to the regulations for the exhibition may be obtained from the International Exposition Bureau, 21 Park Row, New York City.

PRACTICAL HINTS

Original short articles and discoveries are desired for this department, and $1 each will be paid for such as are accepted and published.

What Objective shall I Choose? — This question is one which is often asked, and is therefore worthy of discussion. All of the photographic lenses which may be found in commerce can be placed in one of two principal groups, aplanats and anastigmats. At present only the anastigmat can be considered suitable for a first-class camera, because even at a relatively large opening it covers a far larger plate than the aplanat. All anastigmats can be placed in one of three groups, — the cemented, uncemented, and the half-cemented anastigmats.

All cemented anastigmats possess in connection with a medium rapidity of about f. 6.8, a very large available angle of view, often over 70°. If cemented anastigmats are made with much greater speed, the available angle of view falls off considerably at full opening, and opticians, therefore, have been obliged to wholly or partially abandon the construction of speedy instruments of the cemented type. Therefore, the uncemented, or partly cemented, anastigmats were introduced. They have the advantage that in connection with the great speed of about f. 4.5, an available angle of about 60° is sharply cut, even at full opening. If the uncemented or partly cemented anastigmats are made with a speed of about f. 6.3, the available angle is not appreciably greater, and no optical advantage is gained. Such objectives, however, have the financial advantage that, as they generally consist of only four lenses, they are cheap to manufacture, and therefore low priced.

The cemented symmetrical anastigmats also have the property that the two halves, when only moderately stopped down, cut to the edge of the plate covered by the whole objective, while with the uncemented symmetrical objectives this is the case only after very great stopping down. In the case of the partially cemented, therefore unsymmetrical, objectives, the two halves cannot generally be used alone.

After this short enumeration of the characteristic properties of the different types of objective, it is not difficult to correctly answer the question as to which is the proper lens.

One chooses a cemented anastigmat when a large available angle of view is advantageous, therefore, when a stand camera is to be furnished with an objective, or when one often takes buildings with a hand camera, and, therefore, foresees the use of the rising front. A cemented anastigmat should also be chosen when one intends to often make exposures with half of the lens, in which case the camera, be it hand or stand, must naturally be furnished with a double-length bellows.

One chooses an uncemented or only partly cemented anastigmat when it is a question of great speed, — say, f. 4.5; that is, when one intends to make the fastest possible exposures, for instance, athletic pictures. For ordinary instantaneous exposures, objectives with a speed of from f. 6 to f. 8 are fully satisfactory, and the uncemented or partly cemented anastigmats of such speeds should be considered if the purchaser does not wish to pay the high price of a cemented anastigmat, or when he does not intend to make use of the larger angle of view, or of the greater possibilities of the halves of the objective.

Having decided which type of objective is proper under the conditions, we come next to the question, What length of focus is most suitable for a given plate size? This question can, however, only be decided after we find what kind of exposures are to be made.

For general work, especially all kinds of instantaneous exposures, one chooses the focal length not shorter than the long side of the plate, but also not longer than the diagonal of the plate. For a 4 x 5 plate, we may, therefore, consider a focal length of 5 to 6½ inches; for 5 x 7, from 7 to 9 inches. Under these circumstances, we are using an angle, measured on the long side of the plate, of about 55° to 60°, and measured on the diagonal of about 65°. An objective chosen for this purpose should, therefore, have an available angle of about 70°, so that a small lifting of the front is allowable.

In portraits of single persons, one uses mostly an angle of not more than 45°, in order to obtain artistic pictures. Therefore, for any particular plate one should use a focal length about twice as long as the long side; for the 5 x 7 plate, therefore, for taking portrait heads, etc., one should use a focal length of about 14 inches. For groups a shorter focal length must be chosen, since in this case an angle of view of about 55° is generally used. Therefore, the focal length should be about the length of the diagonal of the plate. For an 8 x 10 plate, therefore, one uses a focal length of about 13 inches.

In architectural exposures, one chooses the focal length, when possible, the same as for universal exposures. If, however, the angle of view is not sufficient in this case, one must use a focal length shorter than the long side of the plate, dependent upon the conditions at the spot to be photographed. Generally, therefore, one makes such wide-angle exposures with an objective of focal length about equal to the short side of the plate.

Naturally it is assumed in the above directions that the focal length in question cuts the desired plate sharp to the edges, which is always the case with good modern anastigmats. — HANS SCHMIDT, in *Die Photo Woche.*

* * *

THE CONFIDING AMATEUR AND THE UNSCRUPULOUS LENSMAN. — When the genial and affable lens clerk in the department store, smiling condescendingly on you, hands you a piece of glass bound around with a metal strip, and assures you that it is the most wonderful lens in existence, you ought to square around where you can get a good look at *him* — never mind the lens.

If the aforesaid clerk goes on to say that the lens — Faquar No. 23, Series X — will show exquisite definition to the edge of the plate, is extremely fast and has great depth of focus at the same time, then the proper thing to do is to get a good look at the man and see if he "bats an eye" or if you can see a sarcastic quiver of the mouth. If these symptoms are absent, he is a fool; otherwise he is a knave. He must be one or the other, because no such lens has ever been made and cannot be made in our present human state.

A lens with a wide aperture has little depth of focus. Width of aperture determines the speed of a lens. Depth of focus means the amount of distance that is taken clearly by the lens. The bigger the aperture, the less the depth of focus. This cardinal rule of optics is as inflexible as the rules of the multiplication table. Seven times six is forty-two and is never forty-three. And by the same token a speedy lens is not a lens of deep focus when wide open. It simply cannot be, and no maker can make it so.

A speedy lens is a lens that admits a large amount of light in a given time. The larger the opening, the less time necessary for the light to affect the emulsion, or plate exposed. The light flows in through the opening, just about the way water flows through a pipe. The larger the pipe, the less time necessary for a given amount of water to pass, the pressure being the same. If your opening for light or for water is small, more time is necessary in order to accomplish the same result as might be produced by a larger opening and less time. There is nothing marvelous about this simple law of physics; you will find it set forth with much detail in any book of physics. The speed of a lens means the amount of light it admits during a given time. This is generally designated by its f. number. The focal length of a lens is a function of its construction, and the ordinary hand-camera lens may have 5-inch, 6-inch, or some other focus.

Now here is the point: Take a 6-inch lens of any maker and compare it with a 6-inch lens of any other maker; set them both at say f. 8; the speed of each is exactly equal. Of course if one of the lenses is very old and the Canada balsam has turned yellow, or if one of them has been injured, or if the glass has deteriorated with age, etc., there might be some difference; but obviously that is not a fair comparison. The point is that lenses of the same focus at the same opening are for most human purposes, especially for practical photography, *exactly equal.* And when a salesman tells you anything different, it is up to you to make up your mind whether he is a fool or a knave: he must be the one or the other.

And when he says his lens possesses extraordinary depth of focus, different from other lenses of similar dimension, you are also bound to put him in one of the two above categories.

For example: suppose we have a 5-inch lens open at f. 8 and set for 25 feet, practically speaking everything is in focus from 13 feet to infinity.

Suppose we have a 5½-inch lens under the same circumstances; we then have everything from 14 to 121 feet in focus.

Suppose we take a 6-inch lens under the same circumstances. We then have everything from 15 to 77 feet in focus.

It makes no difference what name the lens bears; these rules apply to all lenses.

Let us take another case. Suppose we have a 5½-inch lens, and we set it at 10 feet. We use the opening denominated f. 22, and we have a field of depth from 5 to 79 feet in focus. We open it at f. 16, and find a depth from 6 to 27 feet. We open it at f. 11, and find a depth of 7 to 17 feet. We open it at f. 8, and find a depth of from 7 to 14 feet. We open it at f. 6, and find a depth of from 8 to 13 feet. The depth of focus, then, at f. 22 is 74 feet. At f. 16 it is 21 feet. At f. 11 it is 10 feet. At f. 8 it is 7 feet. At f. 6 it is 5 feet.

Now these are a few cold mathematical facts from which you cannot escape. The larger the opening, the greater the speed *and also* the less depth of focus. You cannot get great speed and great depth of focus at the same time.

If the amateur is interested in such matters, he is referred to Chapter III in Bayley's "Complete Photographer"; to *Photo Miniature*, No. 76, page 157, *et seq.;* to No. 107, pages 501, *et seq.;* to No. 79, pages 345, *et seq.;* to No. 97, page 33, *et seq.* He will there find the whole matter thoroughly worked out in detail.

Of course it is also true that lenses vary among themselves; there are various defects that a lens may have or may not have: spherical or chromatic aberration, astigmatism, striæ, coma, flare, etc.; or it may be improperly mounted, defectively centered, too susceptible to atmospheric conditions, etc. Perhaps the average amateur is unable to detect these faults, and has to take the opinion of an expert, or at worst, rely on the general reputation of the maker. But there is at least one underlying mathematical principle that governs all lenses — and that principle I have endeavored to make plain in the lines above.

E. L. C. MORSE.

* * *

A SIMPLE METHOD OF MAKING DEVELOPING TRAYS. — At times, no doubt, you have wished you had more developing trays or possibly some larger ones, but did not feel that the amount of work for which they would be used would warrant buying enameled or rubber ones.

The following description will not only show a simple way, but one that is inexpensive as well. Yet the trays are of excellent quality, being both strong and acid proof.

The first requirement will be some pasteboard boxes; the kind dry plates come in are suitable. Select a box that is a size larger than the plate or print to be developed; for plates 3¼ x 4¼ use 4 x 5 inch boxes, etc. For very large sizes the plate boxes are too shallow, as they only hold one-half dozen plates, so you can probably find boxes of suitable dimensions at a dry goods store. Boxes in which underwear is packed are about the best shape. Some which I have made are 12 x 15 x 1½ inches.

The second thing necessary is some asphaltum. It comes in a solid form, although not extremely hard. It is, however, easily melted. For a few small trays or two or three large ones, about two or three pounds of asphaltum will be sufficient. The asphaltum paint which is sold at paint stores is too thin to be useful for this work. The asphaltum costs about 3 cents a pound in small quantities.

You will also need some turpentine with which to mix the asphaltum. A few ounces of turpentine will make quite a quantity of paint. It can be obtained cheapest at a paint store.

Lastly is required a tin cup or other metal vessel which will not be used again. Be careful not to use a can which is soldered, as the bottom will melt out — with results. A small brush is needed with which to apply the paint.

Now to work. There are two ways of preparing the paint. You can break the asphaltum up into small pieces, put it into the tin cup and pour some turpentine over it. By stirring it at times it will gradually dissolve, taking probably a day or two. If you are in no hurry, this will do perfectly well. As it is a little slow, you can make the paint by first melting the asphaltum over a slow fire. If you heat it too rapidly, it is apt to boil over and smoke badly or possibly catch on fire. Should it take fire, a tin pan placed over it will easily extinguish it. After melting the asphaltum allow it to cool until it begins to thicken, then add a small quantity of the turpentine. As it cools more it will continue to thicken, so add from time to time a little more turpentine. It should be of about the consistency of thick molasses when cold. Don't make it too thin.

The boxes you have selected should be clean and dry. Any loose bits of paper on the edges should be torn off. In case you use plate boxes, only the two largest ones will be needed. The inside of the larger box is to be thoroughly coated with the paint, and then the outside of the smaller one painted. The small part of the box is now put inside of the larger one with the two painted surfaces together. Place them on a flat surface and weight them down with flatirons or some other weight. They should be left until the paint gets fairly hard, so the two parts will adhere firmly. The box can then be painted inside and allowed to dry, and then the outside painted, while the box is supported on the inside by any convenient means. Any spaces between the edges of the two boxes may be filled with the paint. If one coat does not seem to be enough, or if for any reason the surface should become broken or worn away, another application may be put on over the last one.

When the turpentine evaporates from the paint, it is left rather hard, but pliable. It is evident that hot solutions cannot be poured into the trays. Neither should they be left in the hot sunlight.

The trays if carefully made and well painted they are thoroughly acid proof, and may be used in any way that rubber trays are used.

It is almost needless to say that the paint is very sticky, so it is best to work somewhere that it will not matter if you spill or spatter some of it around. A little turpentine will, however, remove any of the paint from the hands or clothing.

Altogether I feel that you will be very well satisfied if you try this simple method just described. — J. P. GLENN.

* * *

TWO CURIOUS DEFECTS. — Expert photographers as well as beginners sometimes get failures which are puzzling in the extreme. Recently two defects showed themselves on some plates I exposed, causing me much annoyance, and as most photographers work in the way that I do, it is possible that some may have met with one of the defects and been at a loss to explain it. Certainly I have never seen the cause of one of them described.

The most peculiar, and for a time the most inexplicable defect is illustrated in Fig. 1, which, by the way, is slightly increased for the purposes of reproduction. The defect took the form of a thin patch on the negative, which, of course, printed very much darker than the rest of the picture, the image showing itself very faintly through the darkness. The peculiarity of this defect was that it appeared only when a roller blind shutter was used. The patch varied its position and intensity, and never appeared when instantaneous or time exposures were given, and it took some considerable time to discover this fact, as the patch would never appear when I wanted it to. It was only by keeping a record of exposures that I discovered that the patch appeared only when "bulb" exposures were given, and then only on certain occasions. Here was a problem indeed, and although I questioned experts, plate makers, etc., I obtained no satisfactory explanation; the causes they gave for the trouble were numerous, but none of them hit the mark, and in spite of all precautions the defect would appear when it thought it would, and usually upon my best subjects.

I, like most photographers I believe, generally look at the subject when photographing it, but once when photographing a very nervous sitter, who asked me not to look at her for even the bulb exposure of approximately half a second, I looked at the camera instead, and saw what I proved to be the cause of all the trouble. It was simply that the jerk of the roller blind caused the tassel on the end of the cord to fly up in front of the lens and so obscure part of the view. The tassel was larger than usual, being a home-made one and rather ornamental. Of course the tassel did not always jerk in front of the lens, which accounted for it not showing on some negatives. Again, the quicker the bulb exposure the more it showed — when it did show; because the longer the lens remained opened, the more chance the negative had of being correct because of the tassel falling again. It was also only when the shutter was set at a comparatively high speed, and a bulb exposure given, that the jerk was strong enough to twitch the tassel upwards. Letting down the spring until it was only strong enough to close the shutter did away with the trouble; weighting the tassel would probably have had the same effect; but my camera is quite heavy enough now, and I do not want to add even one grain to it.

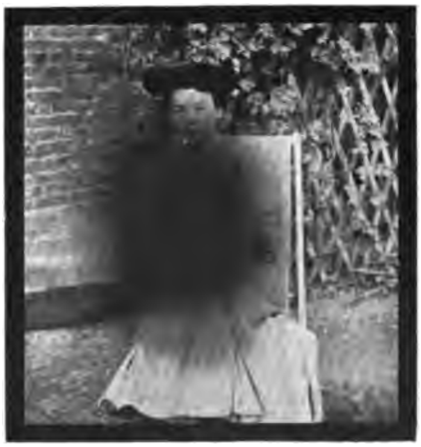

FIG. 1

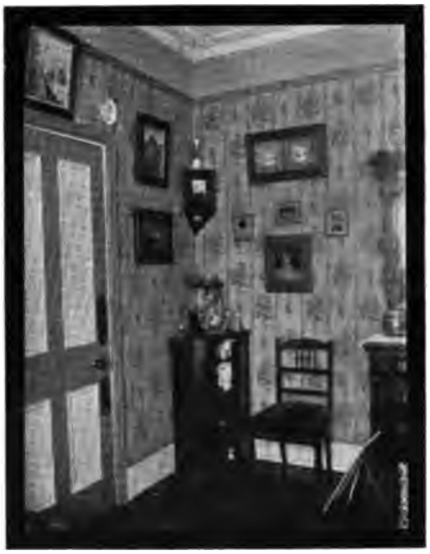

FIG. 2

I had never heard of a similar trouble and possibly some of my readers may get such a defect some day and wonder how it was caused.

My second defect I cannot explain so easily. All I know is that it does occur and the cause, but I must leave it to experts on optical matters to explain the whys and wherefores of the subject. I have asked many experts on lens matters if a supplementary lens — a "magnifier" really — when added to an anastigmat distorts the image. Their replies vary, but Fig. 2 proves that it does, sometimes at any rate. One, I believe, never gets distortion when adding a negative lens to an anastigmat for the purpose of making the latter of a longer focus — a telephoto lens in fact; but when a positive lens is added to an anastigmat in order to make the latter serve as a wide angle, the case is different, because one gets the outside limits of the picture as projected by the lens on to the plate.

The accompanying picture was taken in the following manner. A half-plate anastigmat lens (a well-known make) of 6½ inches focus was placed on a half-plate camera in which a quarter plate was used in a carrier. As I could not get in all the corner of the room I wanted, I fixed on the lens a supplementary lens (also a well-known make) of 11 inches focus. The result was that I shortened the focus considerably and got on the plate all I required. Although the camera was perfectly upright, I got the curvature shown in the picture, and seen at its worst on the lower door panel. I am perfectly well aware that I strained the lens to a very great extent, but I must confess that I did not suspect distortion. However, it appeared, and the hint may interest some readers. — GODFREY WILSON.

* * *

SILHOUETTE PHOTOGRAPHY. — The ardent photographer never wearies. In the summer time his hands are full, and during the winter months he cannot find sufficient time to carry through all his experiments. To those who may desire a suggestion, whereby they may entertain a friend of an evening, I would submit to-night's contribution — silhouette photography — for, among the many aspects of the photographic art, I have found that not the least interesting is that of taking silhouettes by artificial light at night. Regarding the apparatus there need be no concern, for every photographer possesses the things necessary. Any form or size of camera will do, by preference I use one with a stand; a white transparent sheet stretched on a skeleton frame, or suspended from the top of an open doorway; and lastly, a magnesium flash-lamp, or a piece of magnesium ribbon, or any other means of producing a fairly intense white light. My own arrangement is as follows: I work at the top of the house where there are two rooms separated by a landing. In one room I have my source of light — a flash-lamp; suspended over the open doorway there is an ordinary, white, semi-transparent blind; at the other side of it from the lamp I place my sitter; and beyond, again, the camera. I now proceed to make an exposure. First of all I suspend the screen, set up the camera, and then pose the sitter say 18 to 24 inches from the screen, and at right angles to it. To focus sharply I place a lighted candle a few inches in front of the face; and, having done so, I remove the candle, insert the dark slide, uncover the plate, and uncap the lens. Having lowered the lights I discharge, behind the screen, 10 grains of magnesium powder in the flash lamp, or burn a few inches of magnesium ribbon. The distance of the illuminant from the screen should be approximately 4 feet. Let us now consider what has taken place. All the light being on the further side of the sitter, that next the camera has been thrown into perfect shadow, and so, when the exposed plate is developed, we shall find that no detail of the sitter will show, while the white screen will develop up black. When a print is made the opposite is the result, the sitter is black and the surrounding sheet white.

A slow plate is best, and, by preference, a backed one. I focus with full aperture and then stop down to f.11. Should you elect to make a landing your studio, then place the sitter so that the face is not too near a wall, else there will be reflected a sufficiency of light to give undesirable detail on the profile. I find it an advantage to suspend a piece of black, non-reflecting cloth on the wall just opposite the face of the sitter, but this is not necessary if there be plenty of space between the sitter and the wall. Should there be a tendency during development to produce detail on the shadow, then stop procedure, rinse and fix. You may intensify if necessary, but, if the plate is correctly exposed and developed, there should be no occasion for intensification or fakement of any kind.

Photographic silhouettes can also be easily made by daylight. Proceed by placing the sitter against a window over which is placed a piece of waxed or fine tissue paper. The paper acts as a diffusion screen, and the portion of the window not required should be screened off by blinds or otherwise blocked out. — ANDREW H. BAIRD, F. R. P. S.

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HIGH SURFACE PRINTS. — We have of late had numerous inquiries for a method of giving a high gloss to the surface of prints. We had been under the impression that "gloss" in photography is no longer considered artistic. But a writer from the West tells us it is much in vogue for fancy postal-card photographs. The famous Adam-Salomon, of Paris, who, when he lived, stood at the head of European portraitists, invariably employed encaustic paste for imparting a glossy finish to his portraits. This paste is still used by many portrait and landscape photographers. Its composition is as follows: —

Pure virgin wax	500 parts
Gum elemi	10 parts
Benzol	200 parts
Essence of lavender	300 parts
Oil of spike	15 parts

A cheap substitute for the above may be made by dissolving white wax in spirits of turpentine by the aid of heat. But the odor of this is unpleasant unless disguised by some perfume. In either case the application of the paste to the photograph is made by friction with a linen cloth. — *Bulletin of Photography.*

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LINEN CLOTH FOR ENLARGEMENTS. — To prepare such for enlargements or copies in oil it is first washed with a wet cloth and afterwards coated with —

Warm water	300	c.c.s.
Common salt	4.5	grams
Gelatine	0.4	grams
Acetic acid	10	drops

When dried, which may be done by heat, three to four grams of ammonio-nitrate of silver are rubbed over it with a sponge and once again after drying, when it is ready to be printed under a negative. After printing, the unaffected silver is to be washed out and the picture fixed in hypo. — *British Journal of Photography.*

On Keeping Lenses. — A lens should remain for an indefinite time in as good condition as when it leaves the manufacturer's hands, provided a few simple rules are observed, to which we draw attention: —

Protect the lens as much as possible from dust and finger marks.

Do not subject it to sudden and extreme temperature.

Do not expose to the heat of the sun or steam coils.

Avoid damp places.

Never use any sort of polishing material or other solvent on the lens.

Do not allow it to fall or get a sudden jar.

Occasional cleaning is not only advisable, but also very necessary when the lenses show dust, finger marks, or moisture on the surfaces.

To clean, use a well-washed linen handkerchief only.

If dusty, blow off the dust first, then wipe.

To remove finger marks or moisture, breathe upon the surface, and wipe; always wipe lightly, and with a circular movement; a camel's hair brush is convenient to remove dust before cleaning, and, afterwards, remove lint.

If the inner surfaces require cleaning, the utmost care should be observed to remove the lenses one by one, clean, and replace before others are taken out. — *The Photographic Dealer.*

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Coloring Photographs. — Many amateurs like myself have doubtless found it very hard to color photographs on certain kinds of paper, on account of the colors running together.

A very simple remedy for these troubles is to leave out the hardening solution, and use a plain hypo bath; when dry, the prints will not have such a hard surface and the coloring will be found much easier. — Franklyn Wade.

* * *

A Simple Method of making Film Clips. — For the amateur who takes pleasure in making much of his apparatus, this simple method of making clips for holding films in the strip during developing, fixing, and washing will appeal. Procure two spring clothes pins, cut down the inside of the jaws about ⅛ inch and then fasten with small brads, and glue to each of them a piece of wood 3 inches long, ⅜ inch wide, and ⅛ inch thick; after the glue has hardened, soak the clip in melted paraffin, which will render it impervious to the solutions used. With these clips it is possible to develop, fix, and wash a strip of film without getting the fingers in any of the solutions. Any one who has developed films in the strip knows how slippery they are when wet, and how hard it is to hold them. These clips obviate this difficulty. When wetting films preparatory to development, run them through the water, the first time very slowly, and you will not be troubled with bubbles forming on the surface. — Harry G. Phister.

Low Power Photo-Micrography.— Photo-micrography is little attempted by the average photographer; he may be interested enough to price one of the outfits listed and immediately decide that this work is for the scientist alone.

There is an interest, however, in the delicate structure of a bee's wing, in the geometric forms of the snowflake, and in the fairy-like construction of a flower. A magnification of more than four to six diameters is unnecessary for the study of the more simple forms, and the combination of a reading glass with a modicum of ingenuity is sufficient to construct an apparatus of this capacity. The reading glass should be removed from its frame and fastened upon a wooden block through which a hole has been bored; this block may be made in two parts and the glass fastened between, but for all practical purposes the glass may be fastened to the block with thumb tacks. The block should be arranged to slide upon a board at the end of which a piece of plain glass — a 5 x 7 dry plate from which the gelatine has been scrubbed is satisfactory — is fastened parallel to the block. Objects to be photographed are affixed to the glass with a drop of transparent balsam or may be held by another glass strip clamped to the first with rubber bands. When the object is transparent, as a fly's wing, the light should shine through it; when opaque, it should be lighted evenly from both sides, the lights being far enough back to avoid shining directly into the lens. A camera of long bellows draw is the best. Should such a camera not be available, a portrait attachment slipped over the lens will allow one to work close with one of short bellows.

If greater magnification is desired, the resulting negative may be enlarged to any degree. — A. E. Swoyer.

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Seeing Image Right Side Up. — I suppose many photographers, especially amateurs, experience difficulty in viewing an object through the ground glass of a camera. It is either in having to stoop too low or the image being upside down. In my camera I have a small door opening to look at the ground glass.

When taking views of landscapes, groups, etc., where the camera is held horizontally, I use a small glass mirror, with smooth-ground edges. In viewing my image I open door just a few inches, place mirror on door at angle of 45° to ground, shield light from both, and look at object in mirror, which appears right side up. I shut off the light either by a black cloth or by my hands. You will notice this is just as practical as seeing the view through a reflex camera, it being on the same principle, as by looking at the mirror the view is right side up and just as finished picture will look. Be sure to exclude all light from both ground glass and mirror.— Frederick R. Temple.

The ROUND WORLD EXCHANGE CLUB

The exchange code, as we write, is in the hands of the printer, and will probably be mailed to members before this number appears. Exchange propositions should be made in the code only, in order to keep outsiders from imposing on club members. If we exchange only with club members, we will lose fewer prints, and those who do not live up to the rules can be disciplined.

Application blanks must be signed by the following members: Nos. 7, 10, 15, 23, 24, 26, 30, 32, 34, 38, 40, 43, 45, 46. L. Cummiford has forwarded an application without address. These members will find a blank in the advertising section and are requested to use it and forward to the director without delay.

Exchange notices are published only once a year for each member. Therefore, keep your magazine file complete if you want a complete list of your fellow members.

EPCHANGE NOTICES

2. W. F. Jungles, 2104 Thomas Street, Fort Wayne, Ind. Size, 3¼ x 5½.

12. T. E. Harper, Box 67, Corning, Cal. Size, 2¼ x 3¼. D.O.P. Views in general, genre.

13. W. D. Lundstrum, 1013 Eighth Avenue, Lewiston, Idaho. Size, 3¼ x 4¼. D.O.P. General.

14. Richard Pertuch, 2136 N. Natrona Avenue, Philadelphia, Pa. Size, 4 x 5 or 5 x 7. D.O.P. Different kinds.

17. C. B. Bolles, Lock Box 351, Aberdeen, S. D. Sizes, 5 x 7, 8 x 10, or 3¼ x 5½. D.O.P. Scenery, postcards.

19. Kenneth B. Norton, 898 Bryden Road, Columbus, Ohio. Size, 5½ x 3¼ and smaller. D.O.P. and Aristo. Landscape, animals, and public buildings.

20. George W. Sotheard, 9 Bow Street, Beverly, Mass. Sizes, 2¼ x 3¼, 3½ x 3½. D.O.P. General.

27. Dr. John G. Sheafer, 304 O. T. Johnson Building, Los Angeles, Cal. Sizes, 3¼ x 5½, 2½ x 4¼. D.O.P. Beach, mountain, street scenes. High-speed work with focal plane. Photographs to be mailed in envelopes unmounted.

31. Paul G. C. Semmer, 469 Jefferson Street, Portland, Ore. Size, 3¼ x 5½. D.O.P. General scenery.

37. Frank Grafton, P. O. Box 33, Chester. W. Va. Size, 5 x 7 or smaller. D.O.P. Landscapes and general.

39. G. M. Burchnell, Monroeville, Allen County, Ind. Size, 5 x 7 cabinets. D.O.P. Portraits and views.

41. John De Phillippi, Jr., 1004 Hennen Building, New Orleans, La. Sizes, 4 x 5, 5 x 7. D.O.P. and Bromide. Landscapes, New Orleans historical, Mardi Gras, athletic and speed pictures, street scenes, night scenes.

47. H. D. Fowler, 1600 Thirty-fifth Avenue, Seattle, Wash. Sizes, 3¼ x 5½, 6½ x 8½. D.O.P. Views of Pacific Coast States and Alaskan Marine Views.

NEW MEMBERS

55. E. R. Youngs, The Molsons Bank, Ridgetown, Ont., Canada. Sizes, 3¼ x 5½, 2½ x 4¼. D.O.P. St. Lawrence River views, towns, city views, landscapes, sundry.

56. A. Lebourg, Box 132, Marvel, Ala. Sizes, 4 x 5 to 6½ x 8½. D.O.P. Portraits, faces, and full length.

57. Jas. G. McCallister, 221 W. Baltimore Street, Baltimore, Md.

58. Harry Fearn, Haigler, Neb. Sizes, 6 x 8 and cabinet. P.O.P. Scenery and photographs.

59. Frank A. Mason, R. No. 5., Paris, Ill. Size, 5 x 7. D.O.P. and P.O.P. Views in Paris, Terre Haute, Ind., or landscape views.

60. Thomas L. Parker, Olaf, Iowa. Size, 5 x 7. D.O.P. Portrait and general.

61. E. R. Bolander, 116 S. Tenth Street, Richmond, Ind. Size, 4 x 5. D.O.P. Local views and pictorial scenes.

62. Clifford Hampton, Castlewood, S. D. Size, 4 x 5. P.O.P. and D.O.P. General.

63. Roger D. Thomson, 1517 Washington Street, Columbia, S. C. Sizes, 3¼ x 5½ and 5 x 7. D.O.P. General (mostly landscapes).

64. The Hammond Studio, 1905½ Second Avenue, Birmingham, Ala.

65. Fred. J. Kopp, 717 S. Washington Street, Hobart, Okla. Sizes, 5 x 7 and cabinets. D.O.P. Indian pictures and landscapes.

66. Gilbert Woolf, Lost Cabin, Wyo. Size, 3½ x 3½. D.O.P. Western life, nature, cowboy, etc.

67. Lloyd I. Robinson, 681 E. Burnside Street, Portland, Ore. Sizes, 4 x 5, 3¼ x 5½, and 5 x 7. D.O.P. and enlargements. Landscapes, mountain and high altitude pictures, and almost all kinds.

68. Edna R. Gordon, Marshall Road, Lowerre, Yonkers, N. Y. Size, 4 x 5. D.O.P. Views, flowers, portraits.

69. Charles R. Ransden, East Bridgewater, Mass. Size, 5 x 7 and smaller. Post-cards. D.O.P. Landscapes, buildings, animals, etc.

70. George G. Seiler, Browns, Ill.

71. Freed A. Miller, Nappanee, Ind. Size, 4 x 5. D.O.P. Landscapes and buildings.

72. John T. Rowe, Box 588, Painesdale, Houghton County, Mich. Size, 3¼ x 5½. D.O.P. Miscellaneous subjects.

73. John P. Carter, Riggs, Scott County, Va.

74. Frank A. Rice, Ouray, Col. Size, 3¼ x 5½. D.O.P. Landscape, general.

75. J. H. Morton, Fostoria, Ohio. Size, 5 x 7 or less. D.O.P. Views and scenery.

76. Elmer R. Korf, 3608 Rokeby Street, Chicago, Ill. Size, 3¼ x 5½. D.O.P. Scenery and views near Chicago, and enlargements.

77. Francis Parrish, Athens, Ill. Any size up to 5 x 7. D.O.P. Genre, landscapes, winter scenes.

78. Elwin S. Coutant, Captain U. S. Life Saving Service, Oak Hill, Fla. Size, 3¼ x 5½. D.O.P. Marine, landscape, genre.

79. J. L. Heald, Grand Junction, Col. Sizes, 4 x 5, 5 x 7, and post-cards. D.O.P. Mountain scenes in Colorado.

80. Bert Smith, Rowley, Buchanan County, Iowa. Size, 3¼ x 5½. D.O.P. Outdoor and live stock.

81. Casey & Micheal, Harrisonville, Ohio. Size, 4 x 5. D.O.P. Miscellaneous.

82. C. G. Gates, Colebrook, N. H. Size, 5 x 7 and smaller. D.O.P. Portraits, genre, landscapes.

83. Jackson J. Rose, 2729 Evergreen Avenue, Chicago, Ill. Sizes, 3¼ x 5½ to 8 x 10. D.O.P. General.

84. Roy J. Sawyer, 1564 Greenup Street, Covington, Ky. Size, 5 x 7 and smaller. Carbon and D.O.P. Landscapes and flower studies.

85. Fred. W. Oldham, P. O. Box 223, Bedford, Ohio. Size, 4 x 5. D.O.P. General, but mostly landscapes and scenery.

86. Dr. M. Y. O'Brien, Creve Coeur, St. Louis County, Mo. Size, 4 x 5. D.O.P. Portraits and landscapes.

87. H. C. Lindahl, Isanti, Bodum, Minn. Sizes, 3¼ x 4¼, 5 x 7. D.O.P. General.

88. Sam H. Shelstad, Brandt, S. D. Post-cards. D.O.P. Views.

89. Sevedra O. Barnum, Shinglehouse, Pa. Sizes up to 8 x 10. D.O.P. Landscapes and genre in color and monochrome.

90. P. H. Stalter, Box 182, Oshawa, Ont., Can. Size, 2½ x 4¼. D.O.P. Animal, mechanical, landscape, architectural, etc.

91. William G. Grim, 739 Ritter Street, Reading, Pa. Size, 3¼ x 5½. D.O.P. Landscapes and general.

92. G. P. Kimberly, care of Richardson Silk Co., Belding, Mich. Sizes, 4 x 5, 5 x 7, or 8 x 10. D.O.P. Bromide. Mostly landscapes.

93. D. E. Seymour, Schaghticoke, N. Y. Post-card. D.O.P. Views and scenery, no portraits.

94. George H. Read, P. O. Box 45, Richford, Vt. Size, 4 x 5. D.O.P. Landscapes and general.

95. Edwin F. Casper, 940 Thirty-eighth Street, Milwaukee, Wis. Size, 3¼ x 5½. D.O.P. Landscape and general scenes, including city views.

96. Arthur C. Smith, 391 East Jessamine Street, St. Paul, Minn. Size, 3¼ x 5½. D.O.P. General.

97. E. M. Lyons, New Milford, Conn. Size, 2¼ x 4¼. D.O.P. Mostly country and general.

98. Harry Doerr, 4146 Wyandotte Street, Denver, Col. Size, 3¼ x 5½. D.O.P. and colored prints. General subjects.

99. J. A. Zimmerman, 7643 Woodland Avenue, Swissvale, Pa. Sizes, post-card to 8 x 10. D.O.P. Railroad and general views and groups.

100. Ray S. Leonard, 100 Josephine Street, Atlanta, Ga. Size, 5 x 7 and under. D.O.P. All-around work.

101. Milo Jones, 324 W. Union Street, Jacksonville, Fla. Size, 3¼x5½. D.O.P. General, mostly view work and landscapes.

102. F. J. Chatterton, 174 Grand Avenue, New Haven, Conn. Size, 6½ x 8½. D.O.P. Yale College, old New Haven buildings, views around New Haven, views around Connecticut.

103. B. C. Rinehart, 122 Locust Street, Flat A, Chicago, Ill. Size, 3¼ x 5½. D.O.P. Park scenery.

104. Burton H. Allbee, Box 42, Hackensack, N. J. Sizes, 2½ x 4¼, 4 x 5, 3¼ x 5½, 5 x 7. D.O.P. All classes, but prefer historic buildings or sites.

105. S. Ellis Heath, 953 Diven Street, Peekskill, N. Y. Sizes, 5 x 7, 4 x 5. D.O.P. General.

106. Phil B. Keeler, 428 Middlefield Road, Palo Alto, Cal. Sizes up to 5 x 7. D.O.P., P.O.P., later carbon and platinum. Landscapes and pictorial character studies from California and some views of the Azores.

107. D. D. A. Outcalt, 2124 N. Anderson Street, Tacoma, Wash. Sizes up to 5 x 7. D.O.P. Views from Alaska and Western Washington.

108. Alfred M. Sutton, 175 S. First Street, San Jose, Cal. Size, 3¼ x 5½. D.O.P. Mostly landscapes, rural and mountain; some needlehole work.

109. Joseph Wurm, 254 Grove Street, Milwaukee, Wis. Size, 3¼ x 5½. D.O.P. and P.O.P. General, portraits, views, etc.

OUR PORTFOLIO.

Prints made by readers will be criticized in this department; none by mail. Prints should be addressed to Frank R. Fraprie, 221 Columbus Ave., Boston, Mass. and MUST be marked "For Portfolio" on back, whether sent for this department only, or for the monthly competitions as well. Only one print by any contributor can be criticized each month. An asterisk is prefixed to the criticism of reproduced prints.

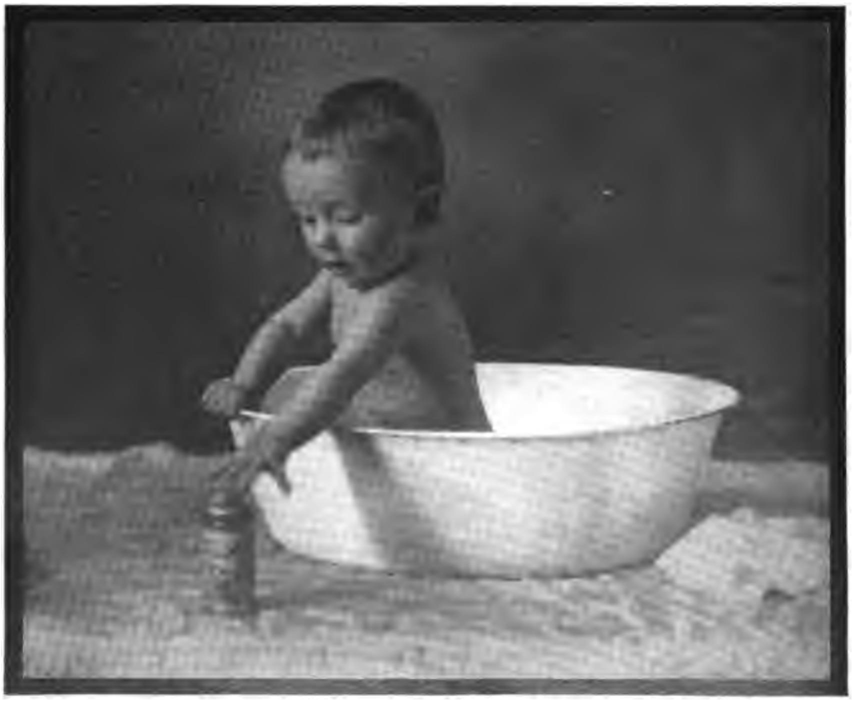
755. R. Bridge. — "September." Your picture of the harvest field is not improved by the heavy black clouds suggesting a tropical thunder storm which you have introduced. If you had preserved the natural cloud values of light gray, you would have an attractive and interesting picture.

*756. Hugh T. Hart. — Your picture of the baby in the bath, reaching for a can, although not new in idea, is well carried out and makes an extremely attractive and interesting picture. The work is good in all respects, save that we would suggest the use of a plain background instead of the spotted one which you have employed.

757. E. B. Collins. — "The Homeward Way." This print is but an impression. To our mind there is no excuse for the enormously exaggerated softness which you have given it. The cart in the road does not look as if it were photographed at all. It has no trace of photographic detail, and if not painted in, bears every evidence of having been thus introduced. The shadows are far too dense for the amount of light in the sky, and neither photographically nor artistically do we consider this a success.

758. J. R. Light. — "My Brother." From the point of view of likeness this may be pleasing, from every other point we consider it unsatisfactory. Under-exposure, over-development, under-printing, all combine to make an unpleasant gray print without a trace of detail in the high lights.

759. Charles H. Anderson. — This is a rather pleasing outdoor portrait, showing fair exposure, although a little more time would not have been amiss. The out-of-focus background of branches



756. BABY'S BATH HUGH T. HART

hanging down is not pleasing, and the position should have been chosen to avoid this.

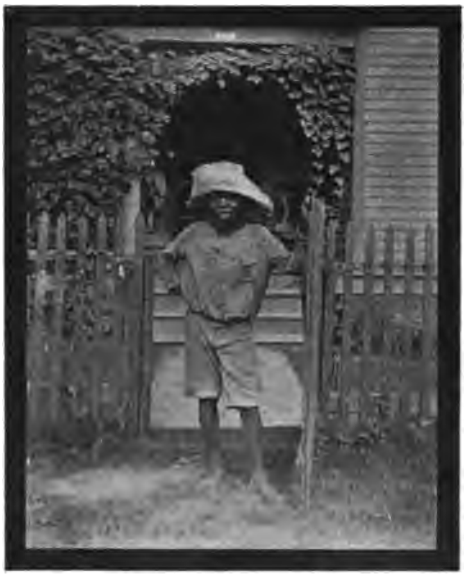
760. Dudley P. Allen. — "An Ohio Sugar Camp." This is a very uninteresting picture. Technically, the snow has no more value than so much white paper, and the water is black as night. Your exposure was far from correct, and you have over-developed so as to obliterate most of the snow detail which you might have preserved by dilute developer. The two lines of the stream cutting across the foreground do not improve the composition of the print.

761. J. Bernard Tighe. — "An Arizona Landscape." In some respects this print has excellent qualities, especially in the sky, which is well treated. There is no reason, however, for the inclusion of the telegraph pole and the large tank at the right, and these might profitably be trimmed off. The diffusion of focus is rather extreme, to our mind.

762. Harry M. Wilson. — "A Glimpse from the Woods." This print shows very poor technique. Your shadows are as black as ink, your whites chalky, your distance clogged up, and on top of this the whole print is fogged. You might have made an interesting picture at this spot and time, by proper exposure, as the arrangement is good, and the vista through the trees should be pleasing and interesting with proper handling.

763. Charles R. Wenzel. — "Forest Road." In this little print you have attempted to render the mystery and silence of the darkling forest, and with a fair measure of success. It seems to us that the tree on the right is somewhat too high in tone and should not be much more brilliant than the other tree trunks just beyond it. The high light of the white flowers in the upper right-hand corner is too near the corner of the picture. If you had swung your camera around a little bit, so as to leave out some of the dark shrubbery on the left and used the space on the right, the effect might possibly have been more pleasing. The perspective of the path is satisfactory, and though the shadows are a trifle opaque, the desired effect is well rendered on the whole.

764. M. E. Sibley — "Wild Rose." The lighting on this flowering branch is very curious. You seem to have a strong spotlight on the center, while the ends of the branches are almost in darkness. The light was too strong, and the exposure insufficient, the result being too much chalkiness and contrast. The branch as it stands has no elements of grace, and the arrangement of the twigs is confused and straggling, and does not lend itself to the purpose of composition. The space is very poorly filled, leaving a large empty margin completely around the spray, which is unsatisfactory. Trimming the top so that the last leaf touches the edge of the print, makes a very marked improvement in the arrangement.



770. PEANUT HENRY A. KREMLING

773. PORTRAIT G. AHLMAN

765. E. T. Goldsmith. — "Fairest of the Flowers." The print which you sent us of this pretty little girl standing before a flowering shrub, has the whites represented by absolutely white paper, without a vestige of detail or texture. This is due to underexposure and forcing development far beyond the normal point in the effort to get missing detail, and in finally printing on a contrasty printing paper. By this accumulation of three causes, you have attained an unpleasant degree of contrast which is rare even among the prints coming to us.

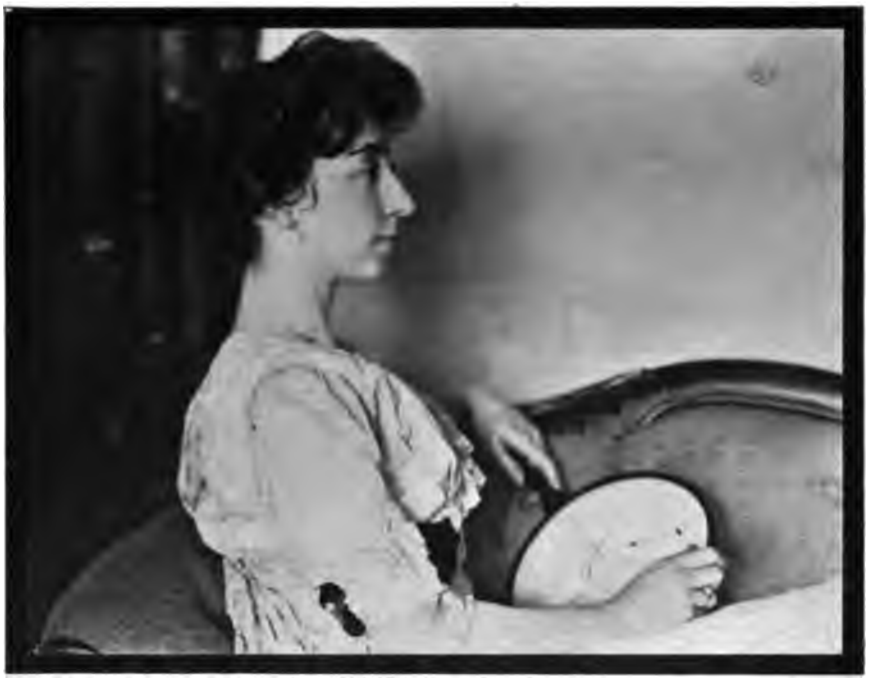
766. F. G. Hanna. — "A Stormy Day." The arrangement and quality of this print are very pleasing. The clouds drifting over the mountain give some impression of storm, but this impression would be much heightened if you should considerably darken the upper part of the sky.

767. Willard N. Maule. — "Harvest Time." As a picture of a plowing team, this would be improved by trimming to about 2¼ x 1¼. This portion of the negative could then be profitably enlarged, to make a very good picture of the man and his team. As it stands now, you have an enormous expanse of bald white sky and uninteresting foreground surrounding the object photographed.

768. May Hammond. — "Waiting for the Turn of the Tide." This negative is over-exposed and under-developed, giving a thin, flat print. As a composition it would be much improved by trimming exactly in the middle, thereby bringing the boat with the figures into the proper prominence, and discarding the useless portion of the print. The discarded part itself, however, would make an interesting horizontal print by cutting off one half inch from the top and about one inch from the bottom.

769. Thomas J. Matthews. — "The Silent Salesman." We can see nothing in this print worth photographing. The dead and shattered tree is ugly enough in itself, without the addition of the enormous sign, to discourage a photographic attempt. As a horrible example of the combined devastation wrought by a forest fire and the vandal hand of the advertiser, however, it has an appeal.

*770. Henry A. Kremling. — "Peanut." "Peanut" is a nickname of the young gentleman of color portrayed in our last



774. PORTRAIT OF MISS G. FRANK WOLCOTT

issue as "A Cotton Picker," and he is apparently a lively and picturesque kid. You seem to be able to make good technical photographs of him, and he is certainly pictorial material. Catch him again in some of his characteristic poses, and you will eventually make some good genre work.

771. **Hans A. Ericksen.** — "Sunday Morning in the Park." Park scenes rarely yield interesting pictures. A park is only man's makeshift for inaccessible nature, and the picture of it invariably reveals the artificiality and constraint requisite to maintain the unequal fight against the invading forces of the city. The rustic bridge is a hideous object in itself, and should never be photographed. Your print shows a curious white line around the darks, probably caused by allowing a contrasty negative to develop without rocking the tray. The darker portions of the negative attract and use up the developer in the neighboring portions of the film.

772. **M. L. McNeil.** — "Roy likes His Candy." This is a pretty good portrait. The exposure is only a trifle less than full, and the values in the light dress are very well kept. The background is perhaps a trifle too heavy and dark, and we would like the print better if the little boy were interested in his candy instead of the camera.

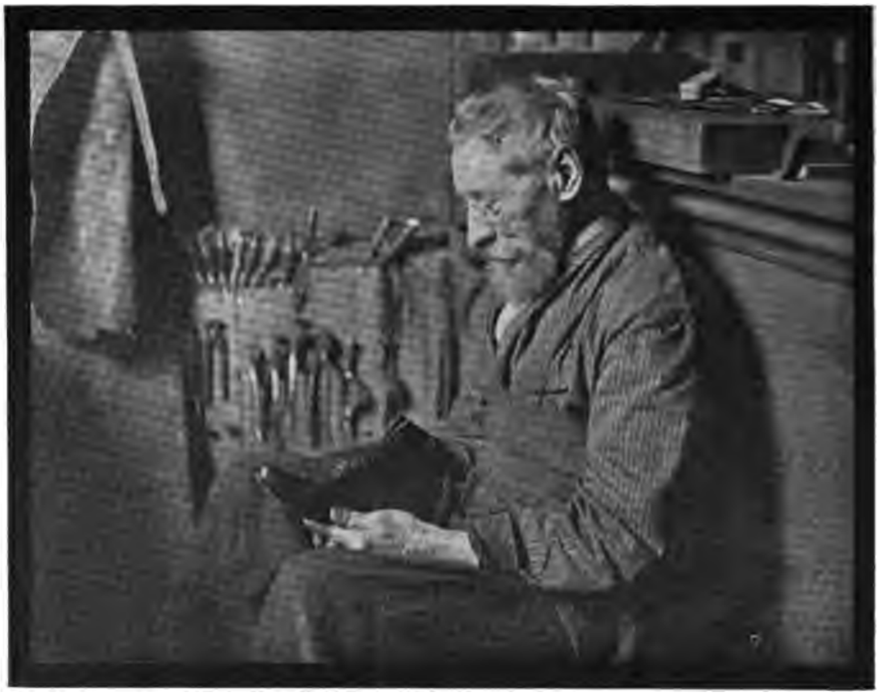
*773. **G. Ahlman.** — "Portrait." Your portrait of a young lady in a low-necked gown with a rose in her bosom, is a very attractive specimen of professional work, rather better than the average. The lines of the dress are simple and graceful, and do not carry the attention away from the face. The retouching is perhaps a trifle overdone, leaving hardly enough texture in the face, and the light spot coming against the cheek and shoulder line is far too strongly accented. You have made it much higher in value than the highest light on the face, for which there is no reason. We would also suggest that instead of vignetting off the bottom of the print, you trim just below the rose, leaving an evident support for the figure. We believe that this would be an improvement. In regard to the mounting, we do not believe that the ragged edges under the print help, and think that the mounting papers should be cut with straight edges, and be plain rather than figured, as you have them.

*774. **Frank Wolcott.** — "Portrait of Miss G." We have selected this print for the first to be criticized, because while it shows some strength, it also shows equal weakness. The arrangement, consisting practically of two strong lines crossing at an acute angle, is bold and is justified by its effectiveness. If with this composition you had united truth in tonal qualities, you would have had a strong result. You have, however, sacrificed values apparently by under-exposure, and obtained a very chalky result in which the values of both flesh and fabric are deliberately discarded. This is not photography, but poster making, and posters are better made with the pencil or the brush than with the lens. The wall at the upper right-hand corner should be much grayer in tone. The sitter's garments should also be several tones darker, keeping the face as it is with the introduction of a little more modeling. The fold of white dress running upward in the lower right-hand corner is wrong and should be retouched out of existence.

775. **Sarah Gorham.** — "Grandpa." A good outdoor portrait in many respects. It is somewhat under-exposed, but a valuable record for time to come. The background is unfortunate, with the head half against the sky and half against the distant trees. It would have been better to elevate the camera or lower it, instead of having this strong division between light and dark cutting across the middle of the head.

776. **John J. Kavanaugh.** — "I've got the Toad." Your print is somewhat too contrasty, the whites being chalky and the shadows full black. The figures in this picture are altogether too small to make a genre, and you would have to trim the print down to very small dimensions to make it really carry out your idea. Even in this case it would not be satisfactory, because one of the little girls is standing directly in front of the tree, which makes a solid black line rising from the top of her head.

*777. **C. W. Munschauer.** — "The Cobbler." The title seems to be inappropriate, as a cobbler is a mender of worn shoes, whereas this workman is contemplating a brand new shoe, apparently just finished. We should, therefore, call the print "The Shoemaker." We believe that the picture would have been more interesting had he been working on the shoe, rather than sitting idly gazing at it.



777. THE COBBLER C. W. MUNSCHAUER

The picture is not improved by the strong spot caused by the hide hanging in the corner, and the lights on the tools on the background should be subdued.

778. J. Maclean. — Your portrait did not receive quite enough exposure. It is really difficult to get too much exposure indoors, and considerably more time would have made this picture more harmonious and soft. We do not like the strong white lines in the wall paper which you have used for a background, nor the prominence of the couch on which the subject is sitting. The strong lines of this piece of furniture take the attention from the subject, and it is always well, in making a home portrait, to leave out any thing which can compete with the sitter for attention.

779. Robert Beck. — "The Captive." The picture of a caged animal behind the bars is always unpleasant. It is not a natural surrounding for the poor beast, and it is a pity to photograph him under such conditions. If you must take pictures in a menagerie, wait until the animals are away from the bars, and get your camera close to them so that you have no trace of them in the picture.

780. S. C. Holly. — "Stranded." This is a fairly good record photograph, and is probably pleasing to the subjects. Pictorially, we cannot see that it possesses any great interest to anybody but the people who were photographed.

781. John E. Arblaster. — "Portrait." If you desire this to be considered as a portrait, you should trim off at least 3¼ inches on the right, and ¾ of an inch from the bottom. You will then have a picture of the old man without much distracting detail. As the print stands, however, the well, the boards covering it, the pails, etc., are all much stronger in their attractive power than the old man, and take the attention completely away from him.

782. Frank L. Bey. — "Dog Study." Your camera was too close to the dog and being of short focus, you have got his head and forepaws foreshortened out of proportion to his body. You have also the whole picture out of focus, so that we cannot consider this to be a very successful piece of animal portraiture. Portfolio prints are not returned.

783. F. C. H. Wendel. — "View from Little Switzerland." This view of partly wooded rolling country has no interest of any kind which should cause it to be photographed. The foreground is monotonous, the distance seen through haze absolutely devoid of detail, the sky bald-headed. There is no line in the picture to make a composition, and all in all you have as flat and uninteresting a print as it would be possible to make outdoors.

784. Rudolph Votapka. — "Milking Time." This is a very bad example of over-exposure and forced development, resulting in a pure white sky, and absolute loss of detail in the shadows. The arrangement is not bad, and you might have made a moderately interesting picture had you given proper exposure.

*785. Frank A. Rice. — "A Woodland Vista." In some respects this print is extremely attractive. While the lighting and exposure were such that the thousands of reflected lights on the leaves give a spotty and irritating effect, the rendition of distance, and the feeling of the vista through the trees is very attractive. The mountain in the far distance towers almost to the top of the picture, and seen through the extremely tall trees, seems to be of tremendous height. The immediate foreground, however, is objectionable, and 2½ inches can be trimmed off to considerable advantage. If this were done, and the picture further enlarged, taking care to bring down the spottiness in the near foliage, we think you would have a result well worthy of preservation.

786. T. W. Meiser. — "Salt Creek." This little print has rather pleasing quality, but suffers from the common fault of a bald-headed sky. The values in the water and the arrangement are pleasing and interesting, and if you had not developed so far you might be able to get a very nice picture by enlargement.

*787. Francis Edgerton. — "The Last Stook." This print was awarded honorable mention in our competition this month, and shows pleasing composition. The feeling of actual work is well rendered, and the placing of the figures is good. You have, however, so much brilliancy in the negative, that your print is too bright all over. The whole picture is in the upper tones of the scale, and there is not a full black in the whole composition. This gives one the same mental feeling that one has in a room where the light is too strong. Toning the print down will not remedy this, as a considerable range of dark should be added to the scale

787. THE LAST STOOK FRANCIS EDGERTON

without losing the highest lights in the sky. Apparently this fault is caused by over-correction on an orthochromatic plate, and too much development.

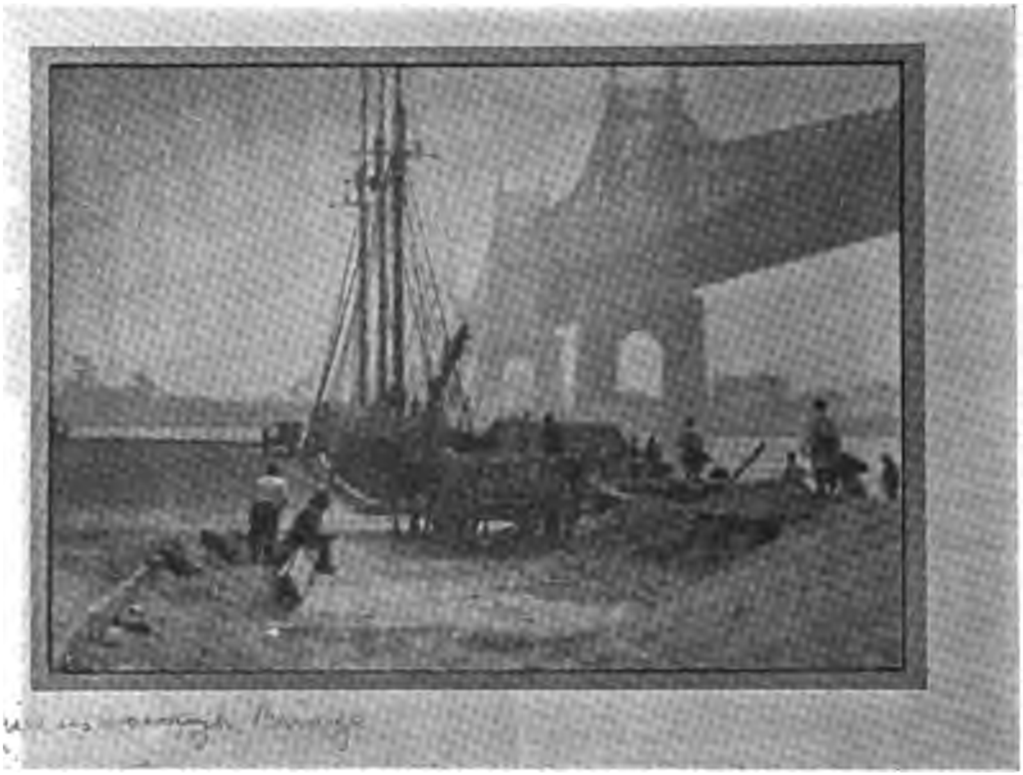
788. E. Leitner. — "A Home Concert." Like the majority of interiors, this print is somewhat under-exposed, and considerably over-developed. Pictorially you have altogether too many white spots in the pictures, tidies, stained glass in the door, dresses, carpet and wall paper. Try to get a less confused background, and keep your accent on the important object, instead of distributing it all over the picture.

789. E. M. Thayer. — "Railroad Bridge." We cannot understand why you should care to take a photograph of such an unattractive subject. Even if you were an engineer and interested in railroad bridges, you would hardly take it from this view-point, looking straight down the track, as this does not show the constructional detail in any respect, excepting unimportant lateral bracing. Technically, your print is too brilliant. The sky has no value, the shadows have no detail. This is partly due, no doubt, to the extreme clearness of the air, which enables one to see distinctly objects miles down the track, but it was not the day to make a photograph for anything but record purposes.

790. Robena Dunlop. — "Burns Monument." One would, of course, expect every visitor to Ayr to photograph the monument to Burns there erected, and such a record would be interesting to many people at home. You do not seem, however, to have been successful in getting a picture properly focused. We judge that you had failed to set the focusing scale properly, and this has made a general blur which renders the picture unattractive.

791. A. W. Crawford. — "By a Woodland Roadside." Considering that this was taken in dense shadow, the exposure is not bad. We might suggest, however, that if the carriage had been stopped ten or fifteen feet farther back, the light would have been better, especially on the horse. Otherwise this is a very satisfactory record.

785. A WOODLAND VISTA FRANK A. RICE



803. QUEENSBOROUGH BRIDGE D. J. RUZICKA

792. N. B. **Knox.** — "The Spreading Sycamore." This print has excellent quality, and a very good separation of planes, especially in the water and wooded hillside above it. There is, however, too much material in the print. The spotty sky is unattractive, and you should trim an inch from the top of the print. Of the bare and uninteresting foreground we can say the same, and would advise trimming the same amount. This having been done, you will have a very much better picture, but it is unfortunate that you did not include a little more on the right-hand side, which would have brought the tree farther from the edge, and made a very much better composition.

793. **John Jorgensen.** — "In the Bay." The arrangement of this print is attractive. The sweep of the curves is very pleasing, and the parallel lines of bank and path repeat each other very nicely. The tones of the print, however, are not satisfactory. You have left out your darks and gone too far toward the light end of the scale, making a flat, gray print, with little texture in the water and a bald-headed sky. If you would repeat this, giving more exposure and less development, thereby preserving the half-tones, and getting full range of darks, you would have a more satisfactory print.

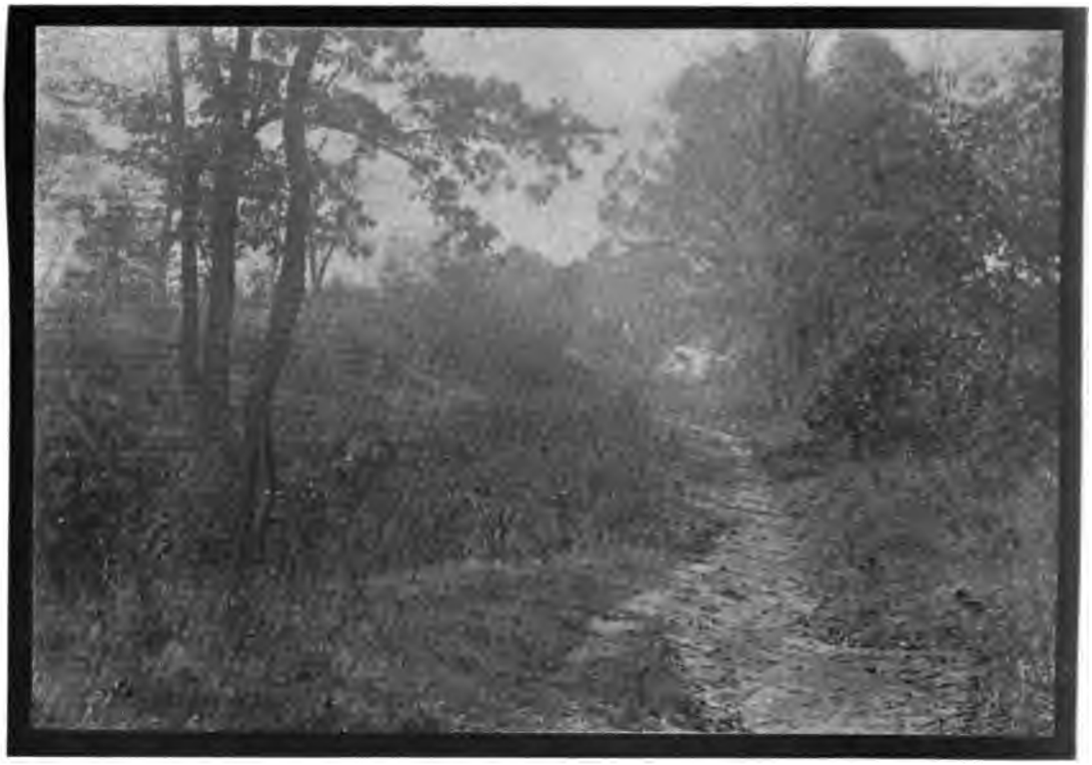
794 F. E. **Crum.** — "A Study." At the first glance this print looked interesting, but analysis does not cause us to hold the first impression. The general scheme of composition is very attractive and the sweep of the lines of drapery is extremely attractive and materially helps the arrangement, which could hardly be improved. The eyes, however, are a very serious defect in the print. It is usually wrong to have the face and the eyes looking in different directions, and the unpleasant staring whites are very objectionable. The ribbon on the head is also too high a light.

795. D. **Davis.** — "Autumn." There was material at this spot for a picture. The straggling trees in the foreground, with the other groups in the distance, undoubtedly afford an opportunity for composition, which you have not grasped. Your principal fault is in including the fence as a straight line cutting directly through the picture. If it were necessary to include this at all, it should have run at some angle, rather than horizontally. The exposure is insufficient, and the development extreme, resulting in a bald-headed sky, which so many amateurs insist on getting.

796. **Dr. Franklin F. Massey.** — "Sylvia." This print shows the gray, flat tones which so many of your others have had, due apparently to over-exposure. Try to get a little more vigor and contrast in your prints. Your flesh tones are putty-like and there is no roundness in what should be the graceful curves of this young figure. We are interested to see that you are continuing your work with photographing your models, but you still seem to have the idea of false modesty. It is not necessary to adopt, in every case, such obvious methods of concealment as you do. The beauty of the young form is a sufficient justification for photographing it, and we would advise you to abandon the attempts to partially conceal the figure by means which are not appropriate. We would also advise you to let the hair flow freely instead of being done up with ribbons, etc., in this class of work.

797. **Anna Beckstrom.** — "Off for a Boat Ride.". This is a good record picture, and reproduces fairly well the conditions existing at the time. We would say that the boy pushing off the boat is a trifle too dark, and that somewhat more exposure would have been better in this case.

798. **Robert H. Foster.** — "The Pond." The most obvious fault of this print is serious under-exposure and over-development, resulting in a pure white sky and jet black shadows. Incidentally you have too much material in the print, or at least it is not properly coordinated. The tree in the foreground is too far to the right, and also too near the camera. If you had moved your camera somewhat back and to the right, thereby bringing the foliage of this tree nearer apparent contact with the trees in the distance, you would have avoided the channel of white which now runs down through



805. OCTOBER MISTS ROY J. SAWYER

the middle of the print, and have tied the parts of the picture together more satisfactorily. The fence posts in the foreground are a decided blemish.

799. George N. Baumiller. — "Jack-o'-Lanterns." The idea of the boys cutting faces in the pumpkins in the harvest field is novel and interesting, but the execution is not wholly successful. You placed your camera too near the principal figure, and it is consequently too near the bottom of the print. If you had moved your camera a few feet back, and not tried to get this shock so large, you would have made a more successful arrangement. The focusing was on too near a point. The point of sharpness should have been the boy in the middle distance, thereby somewhat softening the figure in the foreground, and making the distant woods less fuzzy. A little more exposure would have been better.

800. C. W. Cramer. — "Little Nahant." In the endeavor to catch the surf with a fading light, you have given far too little exposure, resulting in cast-iron rocks and chalky surf. As is usual under such conditions, the development has been forced, thereby increasing the contrast.

801. Douglas C. Beardsley. — Again we have serious under-exposure, over-development, impossible contrasts of chalk and charcoal. We cannot understand why the amateur of to-day is bound to under-expose, over-develop, and then print on the most contrasty paper possible. Undoubtedly the commercial finisher is responsible for much of this by setting a false standard. It is also probable that some of the work which we criticize is made in this abominable commercial manner. All the preaching that we can do seems to have little effect. Many of our readers send in month after month prints showing the same defect. Your little subject is taken in a pleasing and natural attitude and has a most delightful expression. The picture should be very pleasing to the parents, and if you will trim unsparingly right, left, and top, you will have a little print left which will be extremely interesting.

802. C. Burnham. — "The Old Apple Tree." Here is an exception. We have a print which has somewhere near a natural range of values. Possibly it inclines toward too great brilliancy and the clouds in the right-hand corner seem too dark and threatening to accord fully with the brilliantly lighted landscape in the foreground. The composition, however, is fairly good, although we would suggest trimming an inch or so from the top of the print.

*803. D. J. Ruzicka. — "Queensborough Bridge." This print can truthfully be called a picture, perfect in almost every detail. We can suggest no alteration which could improve this in arrangement or in treatment. You have taken a most prosaic subject, the ungainly bulk of a modern steel bridge, and transformed it into a thing of beauty, putting it back into its proper place by the adroit seizure of a most interesting genre subject in the foreground. This print is well worthy of enlargement.

804. R. D. Armstrong. — "The Mountain." This picture is unsuccessful, in that it in no way indicates the scale of the objects photographed. You have contrasted the hills in the background, undoubtedly of respectable height, with a stone wall in the foreground, and as the stone wall is as big as the hills, it is obvious that the eye is forced to conclude that these are insignificant elevations. If you happened to read Mr. Todd's articles on telephotography, published in this magazine a couple of years ago, you may remember that he discovered, as the result of many experiments, that the only way to make mountains appear high in a photograph is to contrast them with objects in the foreground, which the reason knows to be large, but which appear extremely small. In other words, tall trees at some distance from the camera afford the most satisfactory way of making the mountains loom high in the distance.

*805. Roy J. Sawyer. — "October Mists." This is a very satisfactory rendering of an autumn landscape, rendering the atmospheric values extremely well, and having a most pleasing composition. An honorable mention was awarded it in our monthly competition.

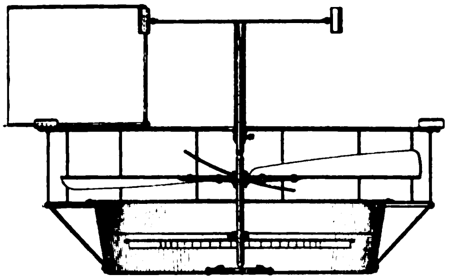
(The Portfolio was closed Nov 2)

RECENT PATENTS.

Abstracted by F. C. Beach. Copies of any of these patents may be obtained at 10 cents each from Munn & Co., Patent Solicitors, 361 Broadway, New York City.

September 27, 1910.

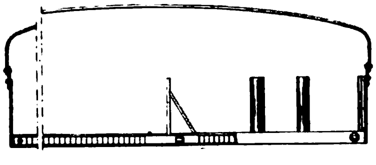
971,447. PHOTOGRAPHIC APPARATUS. HANS C. HUTTEBALLE and CHRISTIAN MORLER, Boise City, Idaho.

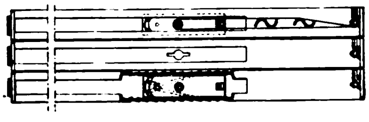


The apparatus is essentially an arrangement for drying prints or films held in a vertical position. In the sectional illustration a horizontal circular water motor is attached to a vertical revolving shaft just above the bottom of the apparatus; this is operated by jets of water pointed diagonally upward against the interior of rim of the motor. Above the motor is a horizontal division through which the vertical shaft passes and seats in the bottom of a stationary vertical post. The shaft carries a propeller-shaped fan and is rotated by the water motor below. Supported on stay rods above the fan is a horizontal open platform carrying spring clips in a radial direction on its periphery, and a tubular vertically adjustable post with horizontal upper arms having spring clips also on their outer ends. The print to be dried is held in a frame or on a net-like support between the clips, as shown on the left. These are placed radially around the periphery of the upper platform. They are dried by the current of air passing upward through them from the rotating propeller-shaped fan below.

October 4, 1910

971,543. APPARATUS FOR HANDLING PHOTOGRAPHIC FILMS. FRANK G. KUGLER, Newark, N. J.



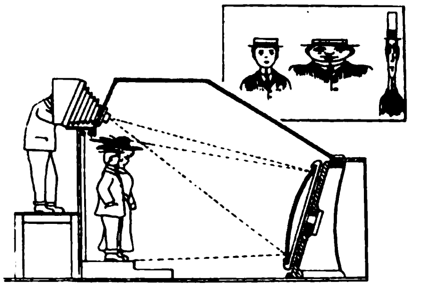


The object of this improvement is to provide a series of individual hollow rectangular base bars, in each of which is a sliding vertical post and a stationary end so arranged that each base bar and post supports an individual film for development and further treatment, with a provision for locking together several bars in parallel series by transverse bolts at each end, and a handle for lifting the whole from one place to another. The side view in the upper illustration shows on the right end the vertical clamp for holding the ends of the film located for development. In the middle is the adjustable vertical sliding post. Between the center and the right end are vertical shields to separate the two parts of the film. The method of using is to first secure one end of the film in the clamp at the right, then unroll it with the coated side outward around the adjustable vertical center post, then pass rearward to a second camp on the right. The adjustable post is now moved to the left to tighten up the film when it is ready for development by immersion in the developer. The post is held by a ratchet in the bottom to whatever position it is adjusted. In the plan of three bars shown in the lower illustration the different features are shown. The upper bar shows in a fine line the film passing from the clamp on the right by the S-shaped spacers around the post (in section) back to the clamp.

In the lower bar is observed the inner ratchet rack on its interior sides and (in dotted lines) the pivoted double levers for expanding into the ratchet teeth, and locking the adjustable center post in place to correspond with the length of film to be developed.

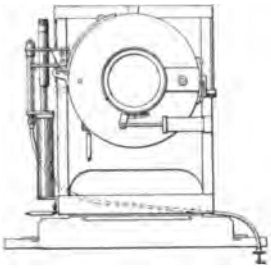
October 11, 1910.

972,373. PHOTOGRAPHIC APPARATUS. HARRY C. HEBIC, New York, N. Y.



The idea of this apparatus is to produce without any trouble distorted and peculiar photographs like those observed in the smaller illustration. At the right end of the larger view is placed a longitudinal convex parallelogram-shaped mirror (shown in section), which is supported in a revolvable frame, the back of which rests upon a movable pivot. In the arrangement as shown the persons to be photographed stand upon a platform at the left or rear of a suitably lighted room with a skylight above, while the operator on the outside upon another platform views through the camera the reflected image from the curved mirror. He makes one exposure in the first position; then by turning the mirror makes further exposures to suit the different effects desired to be secured. Modifications can be made in carrying out the idea. The novel results are shown in the smaller view.

972,419. FLASH-LIGHT ATTACHMENT FOR PHOTOGRAPHIC CAMERAS. **William H. Wallace**, New York, N. Y.

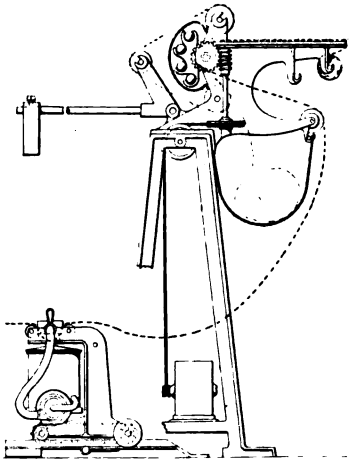


The purpose of this attachment is to provide mechanism for first igniting the flash powder by electrical means and then releasing the shutter at the time the flash has reached its maximum intensity to secure the best illumination of the object when the shutter opens.

To the left side of the camera front frame is secured by a bracket two cylinders, the right one containing a liquid through which a hollow piston passes downward propelled by an encircling spring. Its speed of travel is regulated by an adjustable opening in the bottom. The upper part of the piston carries a transverse metallic flange, the left end of which contacts with a release latch projecting outward from the smaller tube to the left, while the opposite edge contacts with a pin on the side of the lens case. A piston in the small tube is operated by a wire passing through a flexible tube (shown partly by a dotted line), the knob or button of which is observed on the right. When the knob is pressed and the mechanism is released the flange on the descending piston striking the pin on the lens case by electrical contact, ignites the flash powder and at the same moment releases the lens shutter for working the exposure. By certain adjustments on the shutter casing the interval can be varied between the first electrical contact and the opening of shutter, to secure the best results with the flash-light.

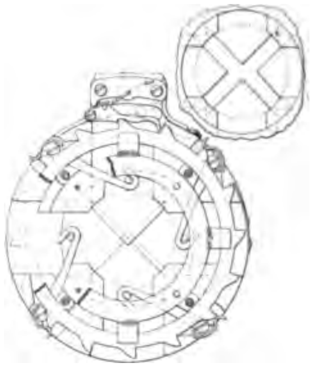
October 18, 1910.

972,909. BLUE-PRINTING MACHINE. **Charles F. Pease**, Chicago, Ill.



The chief feature of the machine is to provide an arrangement of rollers by which a long sheet of tracing can be exposed in contact with a sheet of blue-print paper fed from a roll, as both pass over, under tension, an exposing roll. Both sheets are held in contact against the roll by a triangular endless transparent sheet (shown in dotted lines) passing over an upper and lower roll in a vertical line with each other and a roll at the left supported at the upper end of a pivoted crank arm to the horizontal portion of which is hung an adjustable weight for increasing or decreasing the tension on the contact sheet. Within a semicircular casing supported on brackets are five electric light tubes, the ends of which show in the illustration. An electric motor on the base of the machine operates the mechanism. The heavy dotted line is the printed blue-print sheet, the light dotted line is the tracing, coiled up in the retaining receptacle to the right of the top part of the frame.

973,020, 973,021. PHOTOGRAPHIC SHUTTER. **Joshua T. Fisk**, Rochester, N. Y.

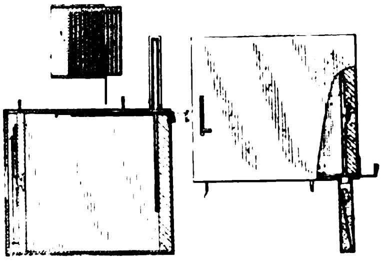


Two patents, the first more complicated than the second, both issued on the same date. The shutter, consisting of four angular-shaped blades arranged to slightly overlap each other when closed recede radially from the center when opening, allowing thereby an equal volume of light to pass through the lens and impress uniformly the edges and center of the plate. There are four hook-shaped shifter pivoted arms which are operated in opposite directions by passing over lug-shaped cams located at the outer circumference of the shutter. An actuator ring having toothed-shaped projections on its periphery always moving forward in one direction by a propelling spring, in striking the cam S-shaped lug on the axial end of each arm hook causes said arm to fly outward rapidly, which quickly opens the shutter blades. Continued revolutions against a second cam lug reverses the direction of the arms and quickly closes the shutter slides. Thus a self-setting shutter is produced, easily adjusted to different speeds. The movement of the actuator ring is regulated by suitable stops and levers in connection with the usual bulb release. The large illustration shows the shutter blades closed. The smaller diagram shows the blades partly open.

In patent 973,021 there is a modification of parts shown in the prior patent, another form of cam and arm being used for opening the shutter. The inventor speaks of it as being of the multi-speed shutter type. Both patents are assigned to the Crown Optical Co. of Rochester, N. Y.

October 18, 1910.

973,272. PHOTOGRAPHIC CAMERA. **Robert Goldstein**, New York, N. Y.

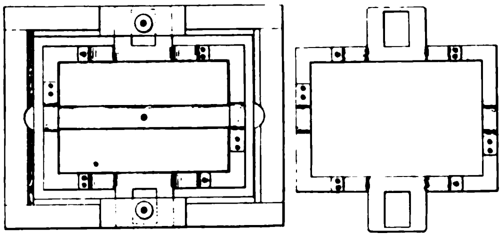


This invention relates to the construction of a simple, inexpensive camera providing for loading with plates one at a time, from a sliding magazine and then after exposure their subsequent development. The left and right sectional square views show the camera in reverse positions. The left view is arranged for loading, the right one for discharging the exposed plate.

The camera proper is made of thin metal closed at the ends with wood, the joints being covered with opaque materials. In the upper right end is a transverse slot over an exposure pocket which is located on the inside of the right end in the focusing plane. The camera has a fixed focus. The plate slot is closed at the top by a transverse metal slide drawn out endwise. Along the slot at the top are guide ways to receive the edge of a special boxlike plate receptacle open at one end, slipped out edgewise from a magazine retaining box (shown in the small view above). When this is over the slot, the slide supporting the edge of the plate is withdrawn and it falls by gravity into the exposure pocket. The receptacle holding the plates is then slid off from the top of the box. The exposure is made by a simple shutter on the front. The camera is then turned bottom up and a developing tank is slid under the plate feed slot, as shown in the right illustration. The metal slide is withdrawn, which allows the exposed plate to drop into the developing tank for development. When this is completed the tank can be slipped off from the box, and the process finished in the usual way. The slide in this right view is shown in a drawn-out position. A very simple shutter and small lens is used, and special sheaths are made for holding the plates.

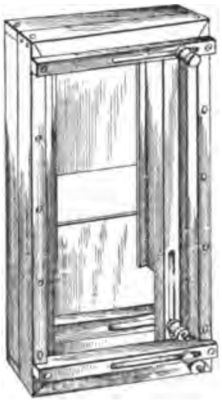
October 25, 1910.

973,629. PHOTOGRAPHER'S PRINTING FRAME. George L. Coursen, Newark, N. J.



Within an ordinary printing frame is placed a peculiar-shaped metal frame somewhat smaller than the frame itself to allow for lateral and longitudinal adjustment in locating the printing area over the negative clamped against the front glass of the frame. This metal frame is then locked in position by two clamping screws on each side of the printing frame. The paper is then put in the frame over the negative and the usual back over that, being locked under ears in the usual way.

973,764. PHOTOPRINTING FRAME. John F. Curtis, MacClenny, Florida.

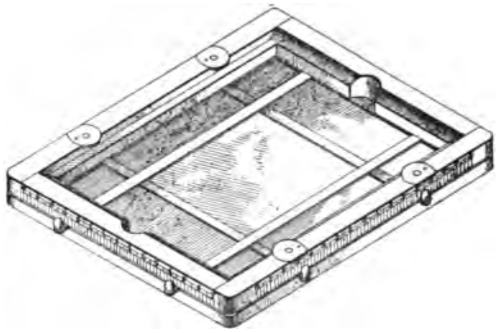


This is essentially a box adjustable to hold different-sized printing frames, fitted also with an adjustable slide on the front for varying the opening of the light aperture.

On the right side is a vertical section which can be moved in stationary horizontal slots to the left in order to clamp the smaller printing frame. The movable section is locked in any position by lock nuts, as shown. The upper bolt and nut shown in the lower right-hand corner is connected to the sliding front of the printing box and is adjustable vertically to suit the desired exposure opening.

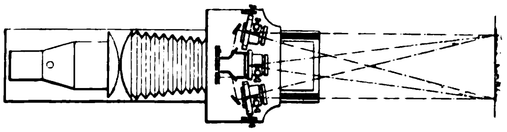
It appears to be quite a simple arrangement for the purpose intended.

973,783. PHOTOGRAPHIC PRINTING FRAME. John H. Henser, Chicago, Ill.



The rim of the frame has a horizontal slot all around it except at the corners. On the exterior is a scale measure. There are four thin flat strips of metal, two traversing the interior of the frame laterally, and two inward and outward from the end, which pass through the slot and terminate in knobs on the exterior. Two run crosswise and two lengthwise. The film negative is held in position on the glass of the frame by these strips. They are moved in the slots and adjusted to the scale on the exterior so as to be parallel. The object is to form a mask on the edge of the print and leave a neat white line around the picture for trimming or to form a border about it.

973,962. PROJECTING PHOTOGRAPHIC IMAGES IN NATURAL COLORS. William E. Oliver, Washington, D. C.



The trichromatic photographic records are arranged in lateral juxtaposition upon a single film or photographic tape; the three images of each object are produced simultaneously in a special camera for this purpose.

The plan view of the apparatus shows at the right proceeding from the plane of the film image, the rays of light of the respective images passing to the left or forward, those for the red screen going directly through the center stationary objective and the red screen beyond it, while the rays intended for the blue and green color screen on each side of the center red screen pass through objectives adjustable laterally at an angle, which are then reflected laterally by a highly polished metal surface, then forward by a stationary angular reflecting polished surface, then again forward through the green and blue screen, all three sets of rays merging in the lantern bellows and passing forward through condensers and objectives at the left, appearing on the screen as one colored view. The inventor states that the reason this arrangement operates well is due to the fact that the center red color vibrations are slow compared with the blue and green, hence the latter (consisting of rapid color vibrations) are more or less choked back a trifle by reflection after passing through their respective objectives and merge with the red vibrations of apparently the same rapidity. The side lenses are adjustable laterally and on a pivot in order to have each of the three pictures coincide on the screen.

By this arrangement the pictures are said to be brilliantly illuminated as they appear on the screen, while adjustment is easily attainable for the productions of different sized images at varying distances from a screen.

Camera Notes

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121 West 68th Street

DECEMBER, 1910

Officers: *F. S. Hastings, President; F. Scott Gerrish, Vice-President; Frank M. Hale, Treasurer; Monroe W. Tingley, Secretary; James Stanley, Assistant Secretary.* Trustees: *W. H. Close, Willard P. Little, Frederick C. Beach, F. Benedict Herzog, J. Walter Righter, Maximilian Toch, Arnold Wood, H. T. Rowley.*

Note: During the summer months the activities of the club were somewhat quiet owing to the absence of many members from the city, but considerable work was done by a few in the line of the bromoil process.

Board Meeting. — Regular meetings of the board were held on September 6, October 5, November 1, and one special meeting on October 19. At the latter meeting Mr. Harry Coutant tendered his resignation as a member of the board, which was accepted.

At the regular meeting of November 1, Mr. H. P. Rowley was elected a member of the board to serve until the next annual election in January, 1911. A nominating committee of three was appointed to nominate trustees to be voted on in January, 1911, consisting of Willard P. Little, J. Walter Righter, Arnold Wood.

It was voted to suspend the initiation fee for an indefinite period as an inducement to secure new members.

The Board ordered the reduction of the fire insurance on the club property from $10,000 to $5000, which will not cover personal property in the lockers of members as has been the custom heretofore. Members will hereafter be obliged to obtain personal insurance on their locker contents. The $5000 covers only the club property.

New Members. — The following have been elected to membership: Active, Herbert E. Angell; Alfred J. McKenna, non-resident; Frederick K. Vreeland, Montclair, N. J.

Club Meetings. — The regular club meetings were held September 1 and November 3, at neither of which were enough members to make a quorum. No business was, consequently, transacted.

Print Exhibitions. — The members' print exhibition was hung on the walls of the gallery during the summer months. In September and October the set of prints of the *Photo Era* Round Robin Guild was on the walls and contained several excellent examples of photographic work. In November some forty unframed prints, about 4 x 5 in size, by Ferdinand Gebhardt of Munich, Germany, were hung on the west wall of the gallery. They were mostly of landscapes and interesting cloud effects, technically perfect; also several of much artistic merit.

On the north wall were hung some ten unframed 8 x 10 prints of good snow scenes taken by A. H. Stoiber, a well-known foreign photographer.

Illustrated Lectures. — On Friday evening, November 4, Mr. George R. King gave an illustrated lecture with lantern slides on "California." The slides were of excellent quality and were quite varied in subjects. They included views along the Pacific coast, such places as San Diego, Los Angeles, Monterey, San José, Santa Clara, San Francisco, the ostrich farms at Pasadena, showing photographs of these birds, each one of which is valued at $3000. He spoke of how a moving picture made of the ostrich's neck when an orange was passing down from the throat to the stomach would show the elastic quality of the neck as it expanded and contracted during the progress of the descent of the orange. It occurred to him it would be an interesting picture. Other views illustrated the noted alfalfa fields, where three or four crops of fodder are secured in a season, the remarkable orange and citrus fields, the process of chilling the air in freight cars by means of special machinery in buildings. After cooling the oranges are packed in the cars; the latter are closed and then carried across the continent in three or four days, and the oranges arrive in good order, perfectly fresh. This method of air cooling saved the expense of ice cooling at different places *en route* and avoided delay.

Other views included scenery at Riverside, Cal., of ex-President Roosevelt planting the seedless orange tree at the Mission hotel there, of the famous magnolia avenue there over five miles long, of the fine school buildings, of the mountains about the orange grove plains, whose melted snow from the snow-capped tops supplied the water of irrigation through concrete aqueducts or trenches to the roots of the trees, and of the rapid-growing eucalyptus trees which he stated were to supply shade and timber for California. There were several views of small dwelling houses—bungalows —enveloped in bowers of flowering plants and vines.

DECEMBER 1910 th 15 CENTS

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FREDERICK CONVERSE BEACH, Ph. B. Mr. Beach is a graduate of Yale, an editor of the *Scientific American*, editor-in-chief of the "Encyclopedia Americana," founder of the Society of Amateur Photographers of New York (now Camera Club of New York), founder of the *American Amateur Photographer*, director of the American Lantern Slide Interchange, an authority on patents and photography.

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30	Bulletin of Photography	.50	" "
69		$1.10	
5		3.45	U. S. club price
$3.45	club price in U. S.	$4.55	Can. " "

EXAMPLE

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5
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$5.70 U. S. club price for the three magazines.

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22	AMERICAN PHOTOGRAPHY	1.50	.35	.75
30	BULLETIN OF PHOTOGRAPHY	1.75	.50	1.00
17	CAMERA	1.00	.25	.50
17	CAMERA CRAFT (new)	1.00	.25	.50
20	CAMERA CRAFT (renewal)	1.00	.25	.50
120	CAMERA WORK	6.50	.50	.50
22	PHOTO ERA	1.50	.35	.75
16	PHOTOGRAPHIC NEWS	1.00	.25	.50
27	PHOTOGRAPHIC TIMES	1.50	.25	.50
42	PHOTO MINIATURE	2.50	none	none
16	PROFESSIONAL AND AMATEUR PHOTOGRAPHER	1.00	none	.50
52	WILSON'S PHOTOGRAPHIC MAGAZINE	3.00	.25	.50
17	ELECTRICIAN AND MECHANIC, until Jan. 1, 1911	1.00	.35	.60
24	ELECTRICIAN AND MECHANIC, after Jan. 1, 1911	1.50	.35	.60
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IN order to encourage our readers in the production of photographs of technical and artistic merit, we award prizes each month to pictures submitted in competition, the subject being as specified each month. The rules are few and simple, as follows:

1. Any photographer, amateur or professional, whether or not a subscriber to AMERICAN PHOTOGRAPHY, may compete.
2. One or more prints may be sent in each month. Each print is judged on its own merit. Only one print from a contributor will be given an award in any month.
3. Prints must be sent to AMERICAN PHOTOGRAPHY, 221 Columbus Ave., Boston, express or postage fully prepaid, to reach us on or before the closing date.
4. Prints MUST have nothing on back but sender's name and address, and title. All information, requests for return, and postage for return MUST be sent in a separate letter of notification.
5. Prints will be returned ONLY if request is made at time of entry, and if conditions of rule 4 are observed. We accept no responsibility for safe return or condition of prints, but will endeavor to pack safely and return in good condition.
6. It is requested that no prints or mounts larger than 8 x 10 be sent, as they are almost always damaged in transit by mail.
7. Each competitor agrees by making entries that any of his pictures may be reproduced, if awarded a prize or honorable mention, by the publishers of AMERICAN PHOTOGRAPHY.
8. Prizes of $7.50, $5.00, and $2.50 in value will be placed at the disposition of the judges each month. They are authorized to withhold one or more if the quality of the prints submitted is not satisfactory. Prizes will be paid in goods selected from the lists of any of our advertisers, books, or magazines. Winners are invited to notify us of their choice of prizes promptly after publication of the awards in the magazine. Prize-winning prints become our property.
9. Every contestant agrees to accept all conditions and awards, by entering pictures.

1910 COMPETITIONS

Month	Subject	Closes	Results Published
December	General	January 1, 1910	February Number
January	Landscapes	February 1, 1910	March Number
February	General	March 1, 1910	April Number
March	Water Scenes	April 1, 1910	May Number
April	General	May 1, 1910	June Number
May	Children	June 1, 1910	July Number
June	General	July 1, 1910	August Number
July	Flowers	August 1, 1910	September Number
August	General	September 1, 1910	October Number
September	Portraits	October 1, 1910	November Number
October	General	November 1, 1910	December Number
November	Still Life	December 1, 1910	January Number
December	General	January 1, 1911	February Number

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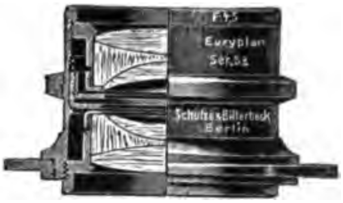

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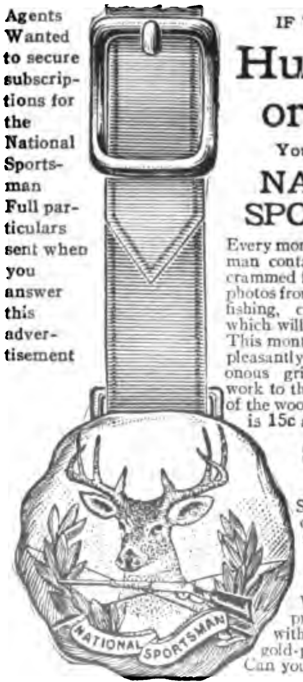

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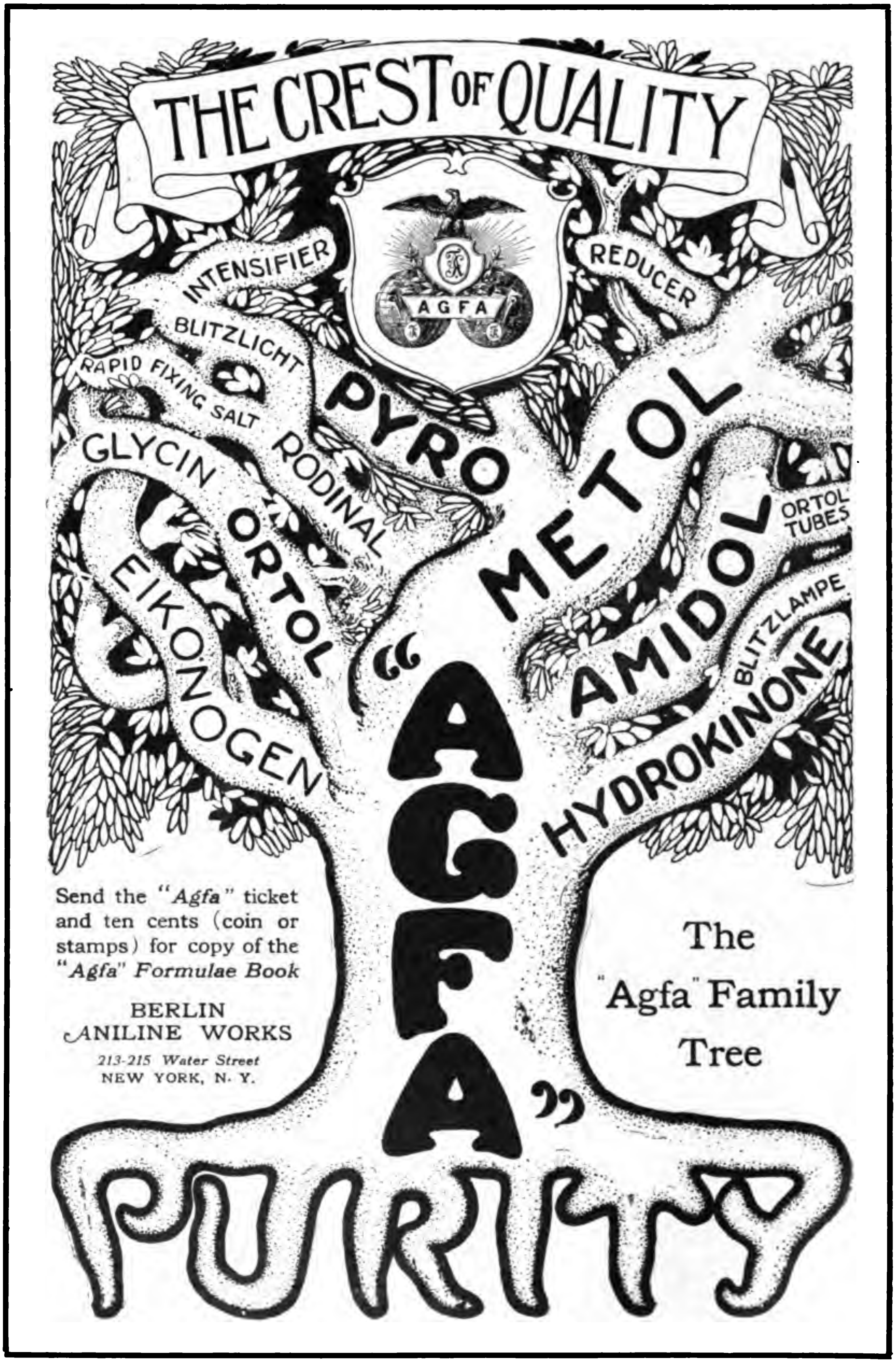

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Do you realize the importance of this feature in a photographic camera? It means that you can see an exact reproduction of the finished print on the ground glass—you see the image full size and right side up; you can watch the changing composition or expression until you get the best possible pictorial effect, and then

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ROCHESTER, N. Y., *The Kodak City.*

REDEVELOPED VELOX.

When printing up your summer negatives on Velox don't forget the possibilities of making Velox sepia prints. Many of the pictures will be improved by making them sepia and the process of making sepia prints by redevelopment is simple, quick and interesting.

Velox Redeveloper is put up in convenient form ready for use and is sold by all dealers. Full directions accompany each package.

There is one grade of Velox especially suited to Sepia tones. This grade, Royal Velox, is coated on a delicate buff colored stock and produces pleasing effects in either black or sepia tone.

A well made redeveloped print on Royal Velox cannot be surpassed for tone and quality, especially when added brilliance is given the print by waxing it after it is finished. We prepare a waxing solution which is ready to apply—just rub it over the surface of the print with a piece of canton flannel.

If you have never made sepia prints by redevelopment, the simplicity of the process will appeal to you.

Stop at the Kodak Dealer's and get some Velox Redeveloper. A thirty cent package will convert two hundred 4 x 5 Velox prints to a sepia tone. Also get some Nepera Waxing Solution, and note the increased brilliance of the waxed prints.

The Price.

Velox Redeveloper (4 oz. package) -	$.50
Velox Redeveloper (2 oz. package) -	.30
Nepera Waxing Solution - - - -	.40

$60.00

*Fitted with **Zeiss-Kodak Anastigmat Lens.***

THE NO. 1A SPEED KODAK MAKES EVERY DAY A KODAK DAY.

Nothing moves too fast for the focal plane shutter used in this speed Kodak and sharp negatives of rapidly moving objects, such as the fastest trains, birds on the wing, running horses, athletes in action etc. are easily secured.

The No. 1A Speed Kodak is also excellent for slow speed, dark day snap shots not possible with ordinary shutters and for time exposures.

Let the dealer show you this high grade efficient instrument.

Eastman Kodak Company

ROCHESTER, N. Y., *The Kodak City.*

FLASHLIGHT.

During the winter evenings the Kodak and flash illumination offer many opportunities to record the pleasures of those evenings.

The family gathers about the table mingling in games, reading and possibly father steals a nap over the evening paper or mother dozes at her mending or knitting—all good photographic subjects.

At Christmas time if there is to be a tree for the little ones, a flash light picture of it, Chrismas eve when it is loaded with the presents and goodies for the little ones, must surely be made. Of course it may be photographed Christmas morning by daylight, but if morning is awaited there is danger of the tree having been raided before a picture can be obtained.

Good portraits are also possible by flashlight and in many cases flash illumination is superior to day light, especially if the subject is to be photographed in a favorite nook or corner, possibly at the piano or playing checkers or chess with grandfather on the reading room table—all of which are too far removed from a window to be properly lighted by daylight.

Subjects without end which will perpetuate the family associations are yours by flashlight and very little experience is required to secure excellent results by the flashlight method.

Flashlights do not necessarily need to be made in a darkened room, as the illumination of the lamps ordinarily used will not interfere, provided the light from them does not shine into the camera through the lens.

Whenever you see something you would like to picture, just set the Kodak upon a tripod in a position that will shield the lens from the light and when ready to make the flash open the shutter, closing it again as soon as the flash has been made. In this way the ordinary illumination will not have had time to cause any noticeable effect on the sensitive film.

We publish a booklet on the making of flashlights in the home and this booklet may be obtained at the dealers or from us by mail. It is free for the asking and contains illustrations made by flashlight with diagrams showing the position of the Kodak, the sitter and the flash. The booklet is entitled "By Flashlight" and is interesting and instructive throughout.

To those familar with flashlight, we need only mention the two most convenient flashlight mediums—the Eastman Flash Sheet and the Eastman Spreader Flash Cartridge—both ready for use.

The Cartridge makes an instantaneous flash and is used for securing pictures of the children at play or for pictures in which a pose cannot be held.

The Flash Sheet produces a softer light and burns for a second or two and is preferable for those pictures where an instantaneous exposure is not necessary— preferable as the light is milder than the quick, bright flash of the Cartridge.

The Eastman Spreader Flash Cartridge may be used with a fuse or with the Eastman Spreader Flash Cartridge pistol.

The Eastman Flash Sheet may be pinned to white card board and ignited or used with the new Eastman Flash Sheet Holder which is ideal for the purpose. Directions for use accompany all Eastman flash materials.

Step into your Kodak dealer's, ask for a copy of "By Flashlight" or let us mail it to you. It will explain and illustrate the proper use of flash illumination for the making of pictures in the home which cannot be obtained in any other way.

On the following page we show illustrations of the new flash sheet holder, also illustrations showing the appearance of the flash sheet packages, spreader flash cartridges and cartridge pistol.

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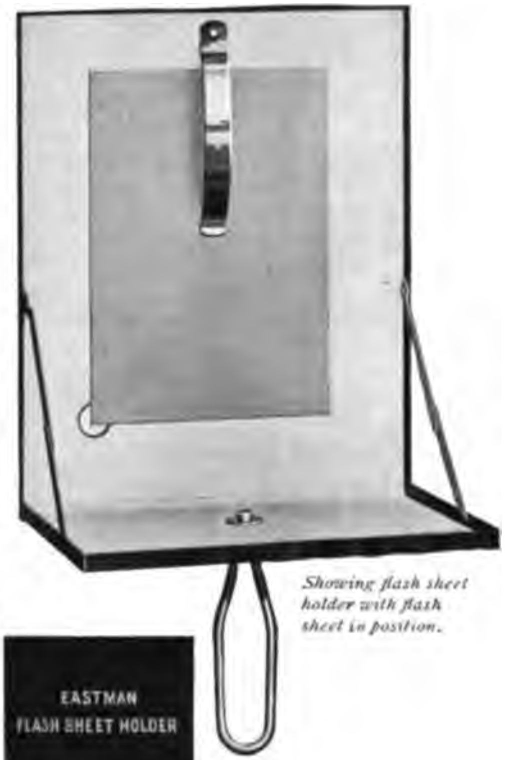
THE EASTMAN FLASH SHEET HOLDER.



Showing flash sheet holder with flash sheet in position.

Igniting the flash sheet with match from the back.

PRICE

$1.00

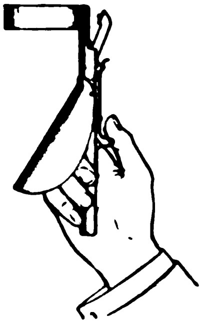
EASTMAN FLASH SHEETS.

No. 1, per pkg. of half doz. sheets, 3x4,	$ .25
No. 2, per pkg. of half doz. sheets, 4x5,	.40
No. 3, per pkg. of half doz. sheets, 5x7,	.60

EASTMAN SPREADER FLASH CARTRIDGE.

Eastman Spreader Flash Cartridges for use with pistol or fuse (price includes both fuse and cap) per pkg. of one half doz., - - - - - -	$ .25

EASTMAN SPREADER FLASH CARTRIDGE PISTOL



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